

Monthly

A Reference for Buyers

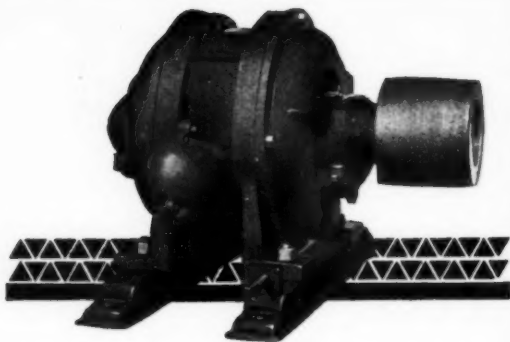
HITCHCOCK'S  
**MACHINE  
TOOL  
BLUE BOOK**

25,000

Controlled Circulation

Published By

508 So. DEARBORN ST.  
CHICAGO



The windings of Reliance Induction Motors are so thoroughly insulated that you can depend upon the motors to give satisfactory service even in dirty locations.

*Bulletin 100 gives detailed evidence*

**Reliance Electric & Engineering Co.**  
1050 Ivanhoe Road, Cleveland, Ohio

*Branches:*

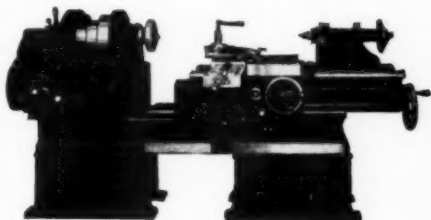
Boston	New York	Syracuse	Philadelphia	Pittsburgh
Cincinnati	Detroit	Buffalo	Chicago	Birmingham, Ala.

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**RELIANCE <sup>AC</sup> <sub>DC</sub> MOTORS**

---

The **UTMOST** in Lathe **UTILITY**  
**Rahn-Larmon Lathes**



**Rahn-Larmon 18"/36" Extension Bed Gap Lathe**

Here is a lathe that covers the widest range of work, and is so sturdily constructed that it will absorb shocks arising from the heaviest cuts. Is it any wonder that it is so widely used in railroad and jobbing shops?

There is no reasonable limit to the amount of work it will turn out, or the variety it will handle without special setting up or tearing down.

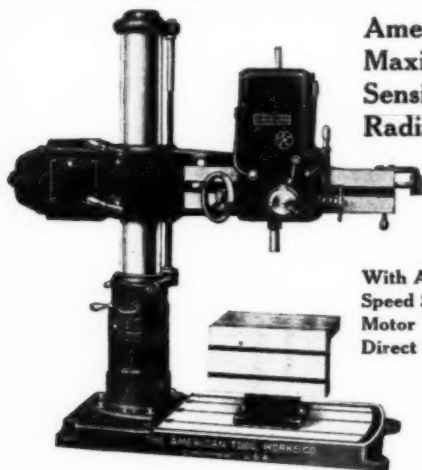
A Rahn-Larmon saves in investment costs, operating costs, and labor costs—a combination that means satisfaction for you.

*Send for details; we'll show  
you how to cut your costs*

**The Rahn-Larmon Co.**  
Cincinnati, Ohio

# Faster Radial Drilling Than Ever Done Before

## At 2,000 R. P. M.



**American  
Maxi-Speed  
Sensitive  
Radial**

**With Adjustable  
Speed Simplified  
Motor Drive for  
Direct Current**

THE FASTEST and most powerful machine of its kind ever built; it drills and taps holes up to 1 in. diameter faster, better and cheaper than ever done before. Its six spindle speeds of 500 to 2,000 R. P. M. open new fields to sensitive drilling.

THE MAXI-SPEED is also furnished with Constant Speed Simplified Motor Drive for alternating current, and for belt drive through 4-step cone pulley.

*If you want to reduce drilling costs to bed-rock, by  
all means investigate the American Maxi-Speed*

### **The American Tool Works Company**

Cincinnati, Ohio, U. S. A.

**LATHES**

**RADIALS**

**SHAPERS**



# LeBLOND Patent Belt Shifter



A necessary safety factor and a valuable production increasing feature. It is applicable to any cone pulley driven machine tool.

*Write for our descriptive booklet and prices*

**THE R. K. LeBLOND MACHINE  
TOOL COMPANY**

CINCINNATI

OHIO

**A Faster Method of Cutting off Bar Stock**

# **New *Avey* Milband Cutting off Machine**

*The Band Saw with the Milling Cut*

**Ask for our  
Bulletin**



**Patented  
August 17, 1926**

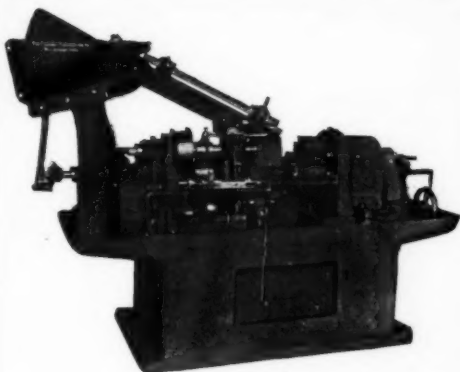
**Other  
patents  
pending.**

**Manufactured and Sold By**

**The Avey Drilling Machine Co.  
Cincinnati, Ohio**

*Under Exclusive License From*

**THE HENRY G. THOMPSON & SON CO.  
NEW HAVEN, CONN.**



## **"This is Production"**

**2800 Pointed and Threaded  
 $\frac{1}{2}$ " Bolts Per Hour—  
One Operator!**

**WHEN USING**

**Four Economy Automatic Combined  
Pointing and Threading Machines.**

**Capacity  $\frac{1}{4}$ "x1" to  $\frac{3}{4}$ "x5 $\frac{1}{2}$ "  
Bolt and Cap Screws.**

**The Economy Engineering Company  
WILLOUGHBY, OHIO**

**FOOTBURT**



## **A Single Spindle Footburt Sipp Sensitive Drill**

**Made in three  
sizes of single  
and multiple  
spindle models**

### **More holes with this machine**

**Why? Because you can change speeds in two seconds or belts in ten seconds—because the automatic idlers keep the belt pulling to capacity at all times—because the full ball bearing equipment and accurate machining gives a smooth, fast cut.**

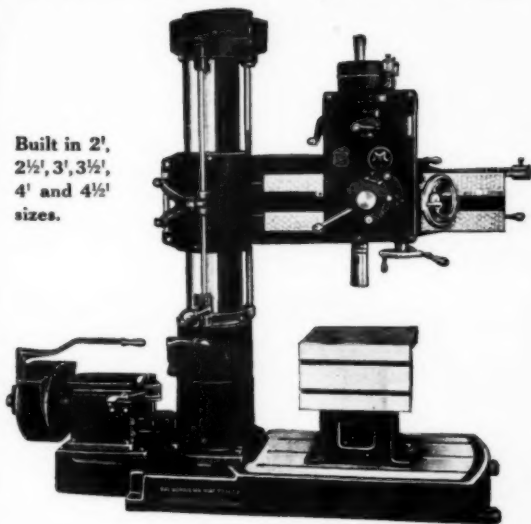
*Write for No. 650 Folders*

**The Foote-Burt Company, Cleveland, O.**

**FOOTBURT**

# Morris Radial Drill

Built in 2',  
2½', 3', 3½',  
4' and 4½'  
sizes.



Morris Radials are rigidly constructed of the best materials with careful workmanship. The gears are alloy steel, heat treated and hardened. Each unit is oiled from a separate reservoir. They are simple and easy to operate. We can design and build drilling jigs to be used with these machines.

Morris Radials are built with speed box or motor drive on base, or with variable speed motor, or with constant speed motor in connection with ball bearing speed box mounted on arm.

*Let us help you with your drilling problem*

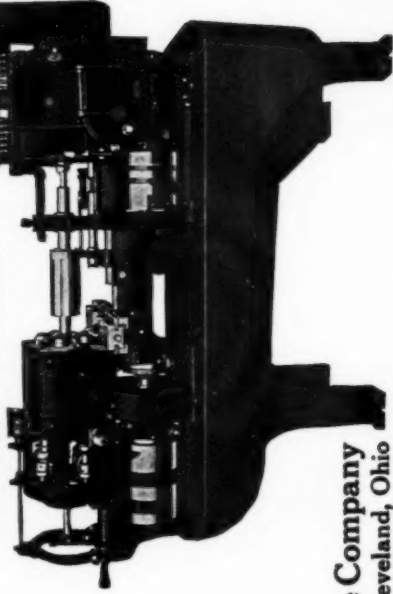
**Morris Machine Tool Company**  
CINCINNATI, OHIO

# Produce More Bar Stock Parts at Less Cost

## The Model C Acme Bulletin

Will Show You How

Write to-day for a copy of the new Model C, Five Spindle Acme Bulletin. It will describe equipment with which other manufacturers have cut their costs—often to a very large extent.



*Get this FREE BOOK*

**The National Acme Company**  
700 East 131st St., Cleveland, Ohio

# 50 Pieces per Minute

*with the*

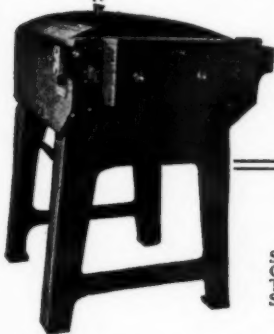
## Kent Semi-Automatic Two-Spindle Pointer

Fifty pieces per minute—that's what one operator can do with this rapid production pointer.

The machine will point the ends of bolts, screws or rods of any length over  $1\frac{1}{2}$ " and up to and including  $\frac{3}{4}$ " in diameter.

The Kent Semi-Automatic Pointer is strong and rigidly constructed. All moving parts, with the exception of the drive pulley, are enclosed to insure safety to the operator. There is plenty of chip space. Bolts and chips are carried away in different directions, so a pointed product, clean and ready for the next operation, is assured.

*Send today for information*



*A Symbol of Quality  
on Any Machine*

Six Spindle Drillers—Screw Slotters—  
Cap Screw and Bolt Threaders—Stud  
Threaders—Cap Screw Pointing and  
Shaving Machines—Bar Pointers—  
Small Tool Grinders.

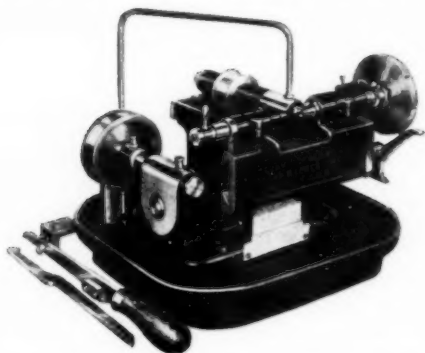
**The KENT MACHINE COMPANY**  
**KENT, OHIO**

CHICAGO Office:  
625 Monadnock Block

NEW YORK Office:  
152 West 42th Street

SLOAN  
and  
CHACE

# Precision Tools



## Automatic Pinion Cutter

Standard capacity 1"x1". Special sizes to order.

The Sloan & Chace Automatic Pinion and Spur Gear Cutter is made in three styles for the rapid production of cut pinions and small spur gears. Each combines great delicacy of precision with the utmost rigidity.

The automatic cutters are fixed to a spindle and play in turn upon the part to be indexed. Use cannot lessen their efficiency, as the depth to which each cuts can be independently regulated. Cutters can be furnished with a magazine feed.

*Write for Catalog of Sloan & Chace Precision Tools  
Bench Lathes—Millers—Gear and Pinion Cutters.*

## Sloan & Chace, Inc.

361 Sixth Avenue,

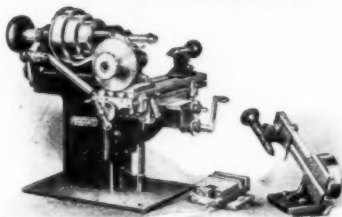
Newark, N. J.



# HARDINGE

## Cataract Bench Miller

For speed and accuracy  
on any milling job



### A Useful Tool for Every Shop

When the manufacturer of a small milling machine realizes its possibilities, it can be made a tool of the widest usefulness.

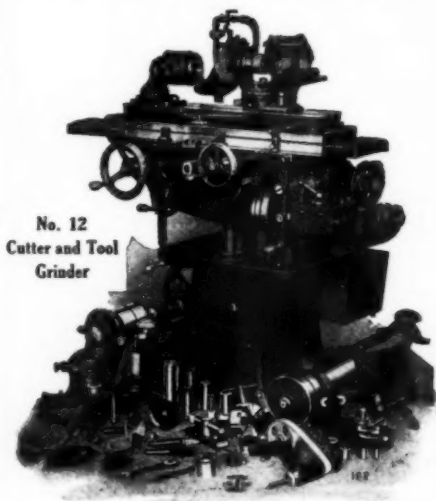
Their long, practical experience with small millers has enabled Hardinge Brothers, Inc., to offer in the Cataract a milling machine capable of such a wide range of work, with such speed and accuracy, that it should be in active service in every shop.

You want money-making tools. If you will drop us a line, we shall be pleased to explain what this modern miller is, what it does, and how it does it.

**Hardinge Brothers Inc.**  
4149 Ravenswood Ave.  
Chicago, Ill.

# Cutter and Tool Grinders

For All Classes of Work



No. 12  
Cutter and Tool  
Grinder

The Nos. 10, 11 and 12 give a range of sizes that will take care of any kind of cutter and tool work as well as light cylindrical grinding.

*Let us recommend the proper sizes for your work*

**LANDIS TOOL COMPANY**  
**Waynesboro, Pa.**

New York Office: 2907 Singer Bldg.      Detroit Office: 5928 Second Blvd.  
Chicago Office: 618 W. Washington(Bld.)

# The "Hole" Question And Sharp Drills



Motor  
Driven

Capacity  
No. 52  
to  $\frac{3}{4}$ "  
Drills

## Style A-7-T Grand Rapids Drill Grinder

The Drill Grinder illustrated above is of the bench type, but can be furnished with floor column. It may be operated from a lighting circuit.

Like all Grand Rapids Drill Grinders, it is scientifically designed to both *sharpen* and *shape* the cutting edges in a way that insures the cutting capacity of which the drills are capable.

Given any particular drilling outfit, and if the drills are sharpened on a Grand Rapids Drill Grinder they can be counted on to do their part in producing the maximum amount of accurate work.

**Write for the Drill Grinder Book**

**It tells the "how" and "why" of it**

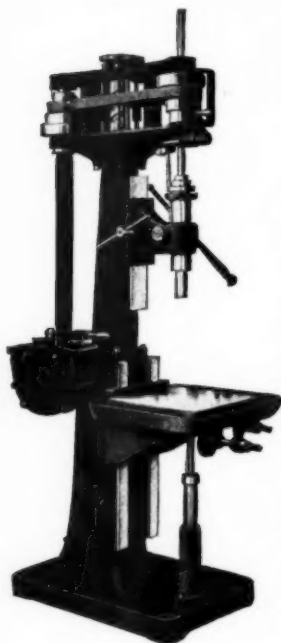
**Gallmeyer & Livingston Co.**

342 Straight Ave., S. W., Grand Rapids, Mich.

Manufacturers of Grand Rapids Drill Grinders, Cutter and Tool Grinders and Tap Grinders. What do you need?

# Fosdick Drilling Machines

Keep Costs Down and Standards Up



## Uprights

21" to 30", cap. 3/16" to 3".

## Ball Bearing Sensitive

13" to 24", 1 to 6 spindle, capacity to 1 1/2".

## Radials

All Geared, high speed to heavy duty, 2 to 6 ft., cap. 3/16" to 4" drills.

Balanced Arm, motor driven, 4 to 6 ft.

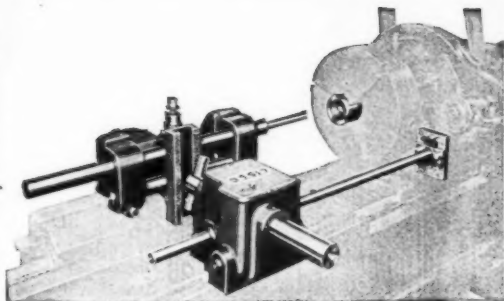
High Speed Sensitive, 3, 3 1/2 and 4 ft., for drilling and tapping, capacity to 1".

Our 16" High Speed Sensitive Drill exemplifies the qualities that make Fosdick Drills leaders in their field. Its design incorporates developments in advance of the general practice. The "Fosdick" practically eliminates friction losses and reduces oiling requirements. Spindles are tested to a running balance; gear induction is done away with, and drill breakage is practically eliminated.

*Fosdick Drills satisfy the most exacting requirements for dependability, accuracy, and speed. Write for our fully illustrated catalog*

**The Fosdick Machine Tool Co.**

1638 Blue Rock St., Cincinnati, Ohio



## ....oil-groove bearings like these—*four a minute!*



The Cisco Oil Grooving attachment is handily attachable to any lathe 16 to 20 inches inclusive; cuts a single or double oil groove of figure eight type inside or outside the bearing, the style and depth of groove being readily changeable by the operator.



Effective and efficient on small or large quantity production. The range of the regular machine is 6 inches in stroke length, but this can be lengthened depending upon the size machine mounted on. The diameter of the work to be oil grooved, is not controlled by the attachment, but by the size of the machine and chuck used.



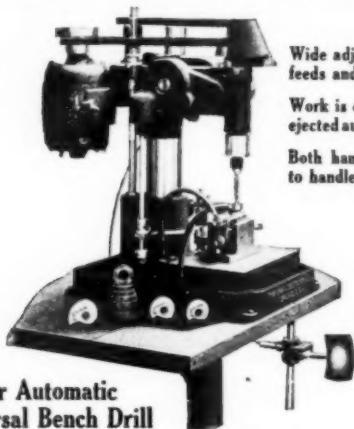
The time required for putting an oil groove in a brass bush 2 inches long and 2 inches in diameter, in and out of the machine, is about four pieces per minute.



*This is the most convenient and economical device available for oil grooving. It is a time-saver and money-maker wherever installed. Write for bulletin and prices.*

**The Cisco Machine Tool Co.**  
1700 Elmore Street, Cincinnati, Ohio

# For Large Production Drilling In Small Parts of Varied Shapes



Wide adjustability of feeds and speeds.

Work is clamped and ejected automatically.

Both hands left free to handle work.

## Stecher Automatic Universal Bench Drill

The number of holes that can be drilled in a given time on the "Stecher Automatic" is limited only by the capacity of the drill.

The wide adjustability of speeds and feeds; the automatic clamping, releasing and ejection of work; the control of feed by a slight knee pressure, leaving both hands free to handle work—these are some of the features that make the "Stecher" such a *remarkable producer at bed-rock cost*.

The mere pulling of a lever changes the "Stecher" from an automatic production tool with power feed into a high speed drill press with sensitive hand feed. We can also furnish dial, rotary or magazine feeds to suit conditions.

*Write for folder, which gives the complete description  
Also send us samples of your small parts to be drilled*

**The Chas. Stecher Co.,** 2452 N. Greenview Ave.,  
CHICAGO, ILLINOIS

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# Demco Drills

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## Solved

**Sensitive Drill Spindle  
Troubles**

**Drill Breakage Reduced  
to a Minimum**

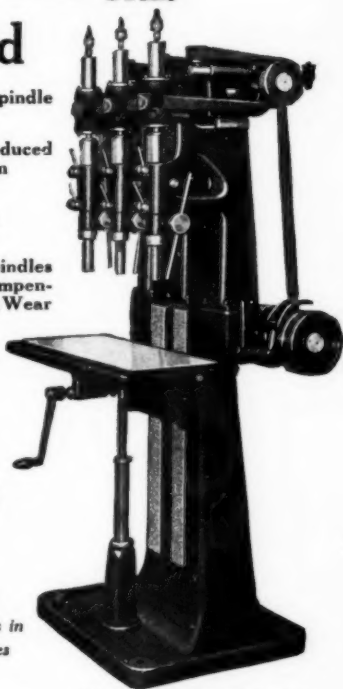
## Why?

**Because Demco Spindles  
Automatically Compensate  
for Their Own Wear**

**The  
Spindle Without  
Lost Motion**

**No Locknuts to  
Adjust**

**Consequently  
The Only Perfect  
Drill Spindle on  
the Market**



---

*Sold through  
machinery dealers in  
all principal cities*

---

**Model D 3-Spindle Floor Type**

## **DEMCO DRILLS—Cleveland, O.**

*Division of*

## **Merit Oil Equipment Co., Cleveland, O.**

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# Threading 1200 pieces per Hour

These brass wing  
screws shown are  
being threaded on  
our



## Standard High Speed Tapping Machine

*Let us show you what can  
be done on your work*

**Leland-Gifford Co.**

Worcester, Mass.,

U. S. A.



*Branch Offices:*

BOSTON  
NEW YORK

CLEVELAND  
DETROIT

CHICAGO  
ROCHESTER

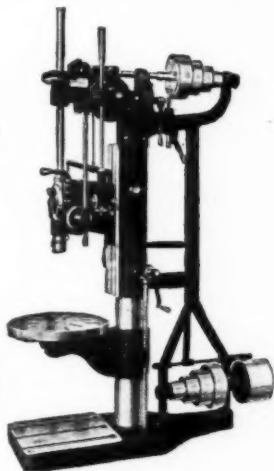


# BARNES DRILLS

With  
Stationary  
Head, from  
8 to 25-inch  
swing

---

With  
Sliding  
Head, from  
22 to 50-inch  
swing



*Write for full information*

Established 1872

**W. F. and John Barnes Co.**  
Rockford, Illinois

# Eliminating Vibration



**Canedy-Otto**

**Sensitive Bench**

**Drill No. 29**

Drills to a 10" center.

Capacity  $\frac{3}{8}$ " diameter.

Run of spindle  $2\frac{1}{2}$ ".

Run of table 7".

110 V.—60 Cy.—1 Phase

1100—2200 R. P. M.

**\$44.00**

## Ready for the Job

**Comes complete with Toggle Switch, Cord, Socket, Belt and Chuck**

The vertical type ball bearing motor with which the Canedy-Otto No. 29 is equipped is attached in such a manner that the proper tension is constantly exerted on the belt, preventing loss of power. This design eliminates the use of gears and operates at high speed without noise or vibration.

All parts are accurately machined and balanced for high speed work. The spindle is so ground and fitted with ball thrust bearing and chuck that true running is insured.

**Canedy-Otto Manufacturing Company**

**Main Offices and Factory—Chicago Heights, Illinois**

**New York Branch**  
407 Broome St.

**Complete stock**  
carried at branches

**San Francisco Branch**  
955 Folsom St.

# Air Will Speed It—

Pneumatic Tapping Increases  
Output From 100 to 300%—

*Gaterman is breaking  
records everywhere*

This tapper combines the accuracy, precision and tool economy of hand tapping with a whirl-wind speed—that cuts the time required from 50 to 75%.

**High Speed  
Pneumatic  
Oscillating  
Tapping  
Machine**

*We make  
you a  
guaranteed  
production  
estimate!*

*Tell us  
your  
requirements*

**W. GATERMAN MFG. CO., Manitowoc, Wis., U.S.A.**



## **RHODES Shaper and Slotter**

**Reduces Costs on Dies, Tools, Models,  
And All Kinds of Light Work**

**7 in.  
Shaper  
Stroke**



**3½ in.  
Slotter  
Stroke**

**Figure your shaping and slotting requirements! Doesn't most of your work fall within the capacity of this machine?**

**The Rhodes has the essential features of larger machines in everything but size, and handles all work within its capacity with greater facility. Then, too, its costs of maintenance and operation are substantially less.**

*Ask your dealer or write for  
CATALOG H22*

**The Rhodes Mfg. Company**  
944 Park Road,    -:-    Hartford, Conn.

**SHAPERS—RHODES—SLOTTERS**

Built in sizes  
 $\frac{1}{2}$  to 600 h. p.



**T**HE trouble points of ordinary motors—bearings and insulation—have been turned into points of strength in Fairbanks-Morse Motors. Ball-bearing construction, with the use of grease lubricant instead of oil, positively prevents oil-soaked insulation. Endless oiling and constant watching of motor bearings is eliminated. Lubrication—a 20-minute job, done once a year—is practically the only attention required.

*Our bulletins cover F-M Ball-Bearing  
Motor advantages. Write for them!*

**FAIRBANKS MORSE & CO., CHICAGO**

*28 branches in principal cities at your service*

**FAIRBANKS-MORSE**

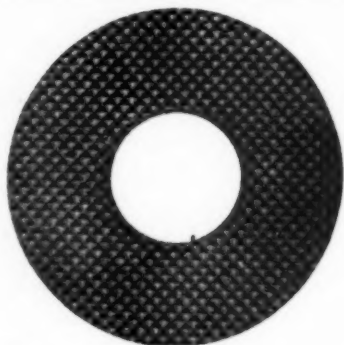
*Pioneer Manufacturers of*

**ball bearing motors**

Use the motor  
that matches  
machine tool precision.



Ask your  
machine tool dealer  
for facts and figures.  
AEA30.6



## The ideal disc for YOUR Disc Grinders!

*The Heavy-type Gardner G. I. A. Disc is*

- 1. Long-lived**
- 2. Fast-cutting**
- 3. Cool-cutting**

It reduces the maintenance expense of the modern Disc Grinder to a minimum; it makes possible the handling of much work which formerly could not be performed on any machine of this type.

*Write for our G. I. A. Folder!*

**GARDNER MACHINE COMPANY**

Near Wheeler Ave.,

Beloit, Wis., U. S. A.

# Etchograph

Trade Mark



Patented July 8, 1918  
Patent No. 1,509,160

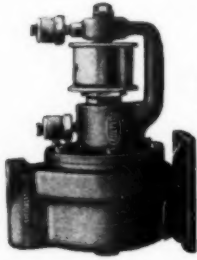
## The Original Electric Marker

Marks any style or size of letter, figure or design on machine or tool parts—whether steel, steelite or iron—and does it in one-fifth the time that other methods require.

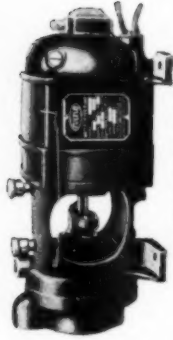
No acid, fuss or trouble is connected with its use. It has made writing on iron and steel as simple as writing on paper.

*Write for illustrated descriptive booklet and  
mention power available*

**William Brewster Company**  
50 Church St., New York



GRINDER PUMP



MOTOR DRIVEN UNITS  
1/2 to 5 H. P. 5 to 75 G. P. M.

## VOLUME PUMPS

**FULFLO delivers** coolant in volumes which promotes efficiency in cutting tools.

**The full, copious flow** from the Fulflo is needed to make the best tool, with the best coolant, most effective.

**FULFLO does not clog**, therefore it always

works. It's the trouble proof pump.

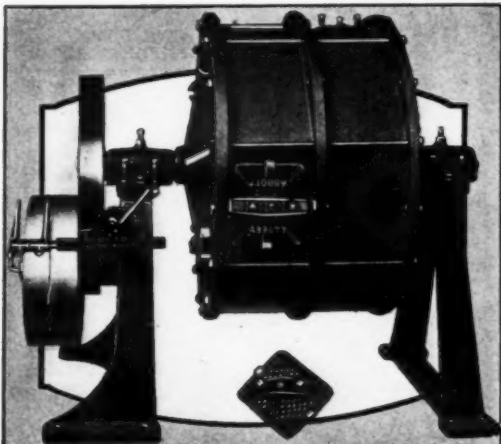
**No machines stopped** to unclog pump. All the chips you can get into it pass through without harm.

**FULFLO has longest life** because its only pumping part does not wear.

MANUFACTURED BY

**FULFLO SPECIALTIES CO.,      BLANCHESTER, OHIO**





## ***Better Burnishing*** **At a Saving of 75 to 99%**

One man and an *Abbott Burnishing Barrel* do more and better work than a crew of many men can do using old-fashioned hand finishing methods. Abbott's process surfaces thousands of pieces at a time—whether gold, silver, steel, brass, copper or nickel—before or after plating—providing a highly polished surface at a tremendous reduction in time and cost.

*Send us samples for finishing and  
cost estimate; we offer visual proof!*

**THE ABBOTT BALL COMPANY**  
*"Originators of Commercial Ball Burnishing"*  
1043 New Britain Ave., Hartford, Conn.

**FREE**

ONE  
FULL SIZE  
BAR

**"ALBU-BAR" Belt Dressing**

Cut out this Coupon and Mail to

**The Geo. H. Garnet Co., Allentown, Pa.**

**-QUESTIONNAIRE-**

*Yes or No*

Do You use Bar Belt Dressing.....  
Do you use Paste Belt Dressing.....  
Do you use Liquid Belt Dressing.....  
What Quantity per year.....  
.....  
.....  
.....

**OUR JOBBERS**

Name and Address is:  
.....  
.....  
.....

**"ALBU-BAR"**

**Belt Dressing**

Is a product of superior quality, backed by twenty-seven years experience in manufacturing belt dressing for the largest belt users.

When treated with "Albu-Bar" regularly, belting returns value to the user. Mail coupon at once.

NAME.....

CITY.....

STATE.....

**FREE** ONE FULL SIZE BAR  
"ALBU-BAR" BELT DRESSING

## **"Hallowell" Ready-Made All-Steel Factory Equipment**



**Patented  
Patents Pending.**

Complete benches in stock—no lumber to buy, no carpenters to hire—just set the "Hallowell" bench up and put it to work. All-Steel bench legs, for wooden tops, also in stock. So are all-steel tables; steel-drawers with or without locks; steel tool stands, mounted on casters—ideal for overhaul jobs.

*New, illustrated folder FREE!*

**Standard Pressed Steel Co.**  
**Box 19** **Jenkintown, Pa.**

Manufacturers of "Pioneer" Hangers and "Unbrako" Set Screws  
and "Gast" Oilers for Loose Pulleys.

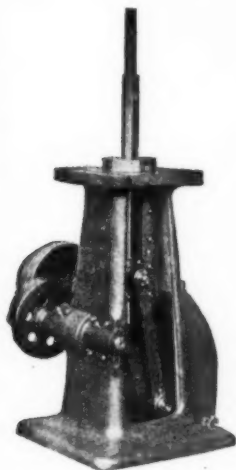


**M**ACHINE Shops can get along without tools like expanding mandrels and high speed drills, but they get out work much faster with them. Write us about mandrels.

**W. H. Nicholson & Co., 117 Oregon St., Wilkes-Barre, Pa.**

# Working For Production?

**Consider Catlin Keyseaters  
For Speeding Up Your Work**



In ordinary shop practice, without any effort at record making, our machine has cut a keyseat 10" long, 1½" wide and 7/16" deep, in three minutes, through a castiron hub. In the hub of a cast steel wheel, it has cut a keyseat 6" long, 1" wide and 7/16" deep, in three minutes.

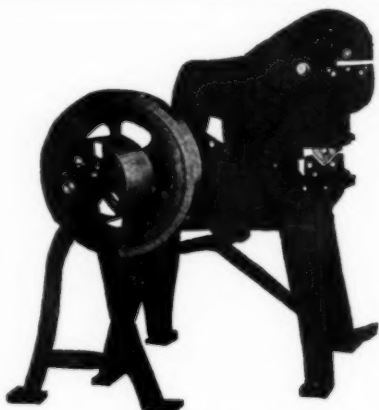
## ***Faster Work***

On some classes of work, it is possible to keyseat piece after piece without clamping down the work or stopping the machine.

*We will be glad to mail you our Catalog  
and send you detailed information.*

**Chattanooga Machinery Company**

2401 Bennett Ave., Chattanooga, Tenn.



**No. 52—Built in Seven Sizes**  
**BELOIT**  
**Combined Power Punches and Shears**  
**Series 51 to 56**

The Beloit Combined Power Punches and Shears offer an unequalled combination of simplicity of design, construction, range of capacity, and moderate initial cost.

Invaluable in any plant for punching, shearing and fabricating steel bars or structurals.

An indispensable equipment for the manufacture of automobile springs and bumpers.

Tell us about your Punching and Shearing requirements. Our line is extensive, and we have a Beloit Machine for your work.

Send for our new catalogue No. 11 which describes the Beloit line of Punches, Shears and Bending Rolls.

**Hendley & Whittemore Co.**  
100 S. State St.,    :-    :-    **BELOIT, WIS.**

# PEERLESS SURFACING MACHINES

*for*  
**Straight  
Grain  
Grinding  
and  
Finishing**

*Ball  
Bearings  
Through-  
out.*

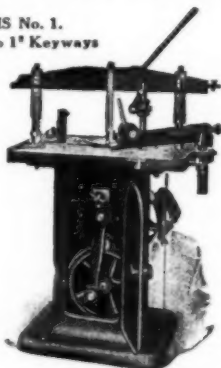
**Also  
made  
in  
horizontal  
models.**

*Write for  
Large Folder*

**PEERLESS SURFACING MACHINE CO., Inc.**  
**TROY, N. Y.**

# Economical Keyseating On the Davis

DAVIS No. 1.  
Cuts  $\frac{1}{16}$ " to 1" Keyways



**Built in two sizes**

Figure your shop costs against your requirements. See how much of your keyseating could be done on the "Davis" more rapidly and more economically.

Its capacity enables it to turn out quantity production of standard parts—yet it has the versatility required to handle a wide variety of everyday jobs. The rapidity with which different jobs can be set up will please you.

The "Davis" is sturdy and operates with great convenience. It has no complicated parts to get out of order.

*Write for a complete illustrated description,  
including interesting table of cutting time.*

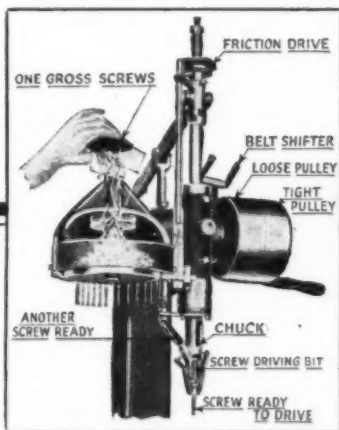
**Davis Keyseater Company**

255½ Mill St.,

Rochester, N. Y., U. S. A.



It's Just as Important to  
**Reduce Screw Driving Costs**  
As Any Other Costs in Manufacturing



Showing Magazine Feed of the Reynolds Automatic

One user of the *Reynolds Automatic Magazine-Feed Screw Driving Machine* says it saves over \$2,000 a year.

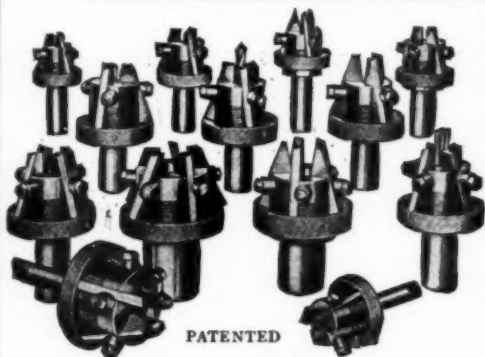
Other users of from one to thirty Reynolds Machines say it saves from 65 to 85 per cent.

If you are not effecting those savings your factory costs are just that much too high.

No matter what kind of screws you drive, tell us their length and gauge, with dimensions over all of your work, and we'll submit a worth-while money-saving proposition—which also includes mechanically perfect work—the screws hold better.

**The Reynolds Machine Company**  
Dept. H. H.,                      Massillon, Ohio

# Saves Your Buying Many New Tools



**Genesee Adjustable Hollow Mill**—has adjustable, replaceable blades, which can be replaced at small cost, and this saves you buying many a new tool. They are ideal for finishing forgings, castings, etc. You can adjust them to the 1000th of an inch in a few minutes, and are designed to utilize machines to their full capacity.

Genesees can be fitted with drills and reamers, have formed blades, etc. Blades can be ground any angle to point work and turn short tapers. They cut up to 15" a minute in steel, are stronger than solid tools, and cannot change in size.

*Seven sizes cover work from  $\frac{1}{8}$ " to 2". The Genesee is now made in six different styles, from the heavy roughing Style "B" to the accurate finishing Style "F." We also make Style "N" Mills for all Brown & Sharpe Automatics. Write us about your needs—our tools reduce costs.*

**Genesee Manufacturing Co., Inc.**

Established 1908

**Rochester, N. Y., U. S. A.**

*Manufacturers of Genesee Rapid Production Tools*



# A RAPID FIRE FILER

*Sharp Saws  
At 5¢ Each*

That is all it  
costs when  
**RESHARPENED**  
on this machine

**SAVES TIME  
REDUCES WORK  
ADDS EFFICIENCY**

## *That's Why*

Amer. Brass have.....	19
Continental Fibre.....	28
Formica Insulation.....	10
and over 100 Newspapers use them	

## **The Model J**

at a speed of  
**70 TEETH A MINUTE**  
sharpens all medium,  
soft or spring tempered  
**CIRCULAR SAWS**  
up to 18" in diameter  
Teeth from as small as 32 to  
1" up to 1/2" spacing.

*Write for Catalog*

## **THE WARDWELL MFG. CO.**

Makers of automatic machines for sharpening—Hack Saws, Hard Tempered Band Saws, Milling, Slitting and Screw Slotting Saws and all Woodworking Saws.

Manufacturers of the largest line of Saw Filers made in U. S. A.

**108 Hamilton Ave.,**

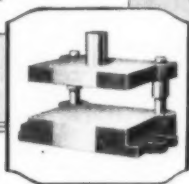
**CLEVELAND, OHIO**

# 12 Types and 97 sizes

## DANLY DIE SETS

are standard tools used by almost 4000 stamping manufacturers.

In first cost, alone, they save 20 to 50%. The saving in use is much greater. There is a type and size for every need. They can be obtained from stock, from nearest warehouse; and ordered from the Danly Catalogue—so simple. Write.



Just off the press—the new Danly Catalogue, in two sections of 12 and 36 pages. Send for your copy—the standard reference book among 10,000 designers, superintendents, draftsmen and tool room foremen.

### Danly Machine Specialties, Inc.

2116 So. 52nd Ave., Chicago, Ill.

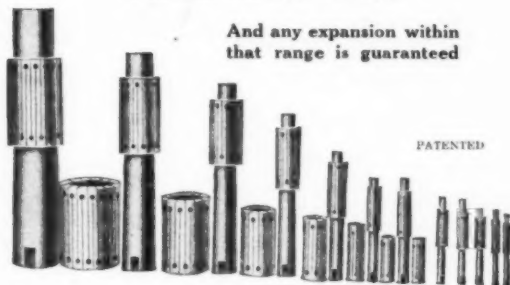
Detroit, Mich.  
1537 Temple Ave.



Long Island City, N. Y.  
35 Wilbur Ave.

# JUST 1 SET OF 12 Champion Expanding Mandrels

Will fill by thousandths any inside  
diameter from  $\frac{1}{2}$ " to  $6\frac{1}{2}$ "



And any expansion within  
that range is guaranteed

**So Simple**—only two parts.

**So Handy**—always ready for any job.

**So Efficient**—dependable for precision accuracy.

They are suitable for all classes of work, large or small, in all kinds of metal. They hold work of any length of bore and do not chatter. They are lighter, more easily handled, and keep truer than common mandrels. They release work easily. And the grinding of all parts after hardening insures the greatest accuracy. The cost is only about one-fifth that of solid arbors of equal range graduated by sixteenths.

## Our Catalog also describes

Champion Tool Holders, Champion Emery Wheel Dressers, Machinists' Vises and Clamps, etc., and our large line of practical, hard-to-beat Shop Furniture. Copy upon request.

**The Western Tool & Mfg. Co.**  
SPRINGFIELD, OHIO

# Pedrick Lathe Boring Bars



There are many times when you could profitably use one of your lathes for boring—if you only had the proper appliances at hand.

We can equip you for such work with one of our Lathe Boring Bars. They are made in diameters from 2½" to 6" and various lengths, with a large assortment of cutterheads to meet miscellaneous requirements.

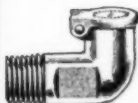
The lathe provides the power, and each bar has a two-change constant feed, hand-controlled or automatic. The bar is rigidly held and is easily taken down and reset without changing the alignment.

Put your boring problems up to us. We have all kinds of new boring machines, from our Standard Portable Cylinder Boring Bar to our new Floor Boring Machines.

## Pedrick Tool & Machine Co.

3644 N. Lawrence St., Philadelphia, Pa.

Builders of Portable Cylinder Boring Bars, Crank Pin Turners,  
Portable Millers, Pipe Benders, etc.



STYLE L  
20 SIZES



STYLE O  
24 SIZES



STYLE E  
13 SIZES



STYLE G  
5 SIZES



STYLE R  
21 SIZES



STYLE KV  
18 SIZES

# GITS BROS.

Standard of Comparison  
**Better Oilers**  
Quality-Schedule Delivery-Price

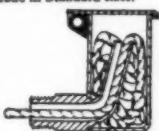
## Gravity and Wire Wick Feed Oilers

Gravity Feed—flushes the bearing.  
Wire Wick Feed—gives desired  
prolonged feed.

Wire Wick—replaces waste or felt.  
Made in Standard sizes.



STYLE WC  
7 SIZES



STYLE W  
8 SIZES



STYLE WT  
3 SIZES



STYLE AOR C  
11 SIZES



STYLE OG  
7 SIZES



STYLE WY  
5 SIZES

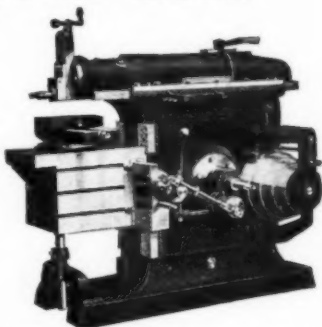
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**Gits Bros. Manufacturing Co.**  
1940 S. Kilbourn Ave. Chicago, Ill.

# SHAPERS

12", 14", 16"  
Plain Crank,  
16", 20", 25"  
B. G. Crank,  
either Cone  
Driven or  
through Speed  
Box.

Belt Shifter  
Regular Equip-  
ment All Cone  
Driven Shapers.

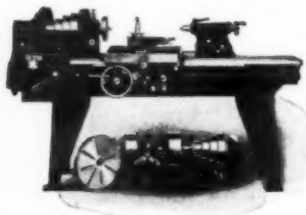
32" Back Gear-  
ed Crank, Sin-  
gle Pulley  
Drive.



The Smith & Mills Co., Cincinnati, O., U.S.A.

## Carroll Invisible Gap Bed Quick Change Gear Lathe

Takes care of a large variety of work—



for the  
Service Station  
Mfg. Plant  
Jobbing Shop  
Tool Room  
and Schools

*Circulars and prices sent on request*

**A. V. Carroll Machine Tool Co.,** Norwood,  
Cincinnati, O.



## Cleveland Open Side Planers

Easily operated, with ample Power and Rigidity, but with features that are thoroughly modern and an ideal machine to help you increase your profits.

**Over 1070 installations**

*Send for descriptive circular*

Dial Feed; Power  
Rapid Traverse; Single  
Turn Rail Clamp;  
Automatic Trip to Rail  
Raising Mechanism;  
Improved Head Clamp;  
Box Tables; Forced  
Lubrication to Vees.



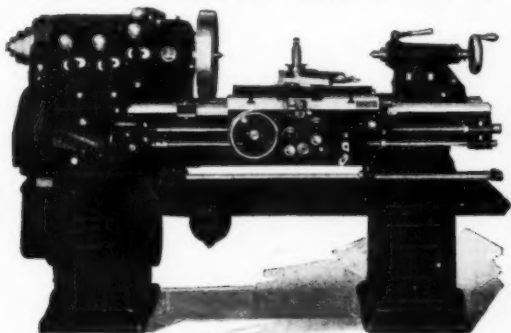
**26" to 72"**

**The Cleveland Planer Co.,**

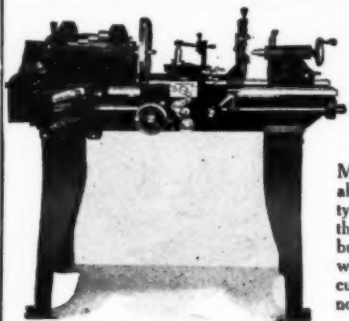
3148 Superior Avenue,  
CLEVELAND, OHIO

*Established in 1900*

## Monarch Helical Geared Lathes



**THE MONARCH MACHINE TOOL CO., Sidney, Ohio**



## Another Sidney Lathe

Our 11" x 4"  
Medium Pattern,  
all geared head  
type. It is up to  
the minute with  
built-in features  
which insure ac-  
curacy and eco-  
nomical service.

*Write for catalog and prices on the complete  
line of Sidney Lathes. Address Dept. 1801*

**The Sidney Machine Tool Co.**  
Sidney, Ohio



## USE the CHICAGO No. 2 POWER PIPE THREADING MACHINE



*For*  
**Production  
and Precision  
Threading**  
**PORTABLE**

*Capacity:*  
1/4" to 2" Pipe  
1/2" to 1 1/2" Bolt

*Featuring:*

1. Quick Die Change
2. Automatic Die Head
3. Three Speeds
4. Perfected Oil Control

*Send for Catalog*

**Chicago Pipethread  
Machine Co.**

Office and Factory: 1623 Racine St., Racine, Wis.

## Grant <sup>Noiseless Rotary</sup> Rivet Spinner



One rivet per second.  
Heads highly polished.  
No hammer or tool marks.  
The work is always uniform.  
As tight or loose as desired.  
Works in hard-to-get-at places.  
It's easily operated by cheap help.  
A boy or girl can manipulate it.  
And—it's noiseless in operation.

Write today for Catalog, showing several styles. Also send us samples of your work for riveting; we will return them with close estimate of cost.

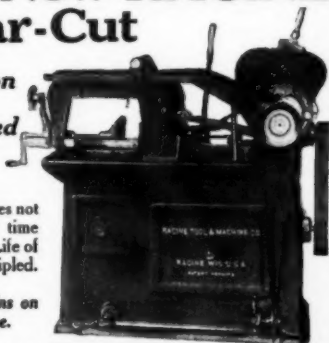
The Grant Mfg. & Machine Co.  
C. E. Station, Bridgeport, Conn.

## The New RACINE Shear-Cut

*Production  
Saw for  
High Speed  
Metal  
Cutting*

Time per cut does not vary. Cutting time reduced half. Life of saw blades tripled.

*Send for bulletins on complete line.*



RACINE TOOL & MACHINE CO., 1429 Junction Ave., Racine, Wis.

## Buhr Multiple Driller

### Is Fully Adjustable



It incorporates the design and construction of the famous Buhr Patent Heads with complete adaptability. It is spur geared thruout, and head and arms are so ground that complete accuracy is insured.

This is one of Buhr's line of multiple drilling and tapping heads, both fixed center and adjustable for all purposes.

**We furnish special arms for close centers**

*Drop us a line, and let us demonstrate Buhr's worthwhile saving*

**Buhr Machine Tool Co.**

**All Spur Geared** Green and Davis Sts., Ann Arbor, Mich.

## Sigourney Sensitive Drills

**Plain or Ball Bearing  
Belt or Motor Drive**

**WE MANUFACTURE** sensitive drills exclusively. They are built for *service*, and in quality are unsurpassed.

**SIGOURNEY DRILLS** are made with one to four spindles. The illustration shows our one-spindle ball bearing drill. It has vertical adjusting head, adjustable table, three speeds, runs true and is very sensitive. *All parts are interchangeable.* Shipped belted ready for use.

*Write for circulars and prices*

**Sigourney Tool Co.**

Hartford, Conn., U. S. A.



# Rubbing Filler—

Just One of Many Jobs  
for the

**TAKE~  
ABOUT** Sander



A new type of machine to save slow hand polishing, etc., on flat or slightly curved articles after assembly or any work too big for your stationary machines. Write us about the interesting features.

**PORTER-CABLE**

**MACHINE CO.**

Salina St., Syracuse, N. Y.

# Thompson Universal Grinder

Self-contained and motor driven, this improved Grinder combines efficient means for the rapid and accurate production of every grinding operation required in a machine shop.

Capacity 10" x 36"

*These machines can now be equipped with the new auxiliary coarse cross feed for surface grinding.*

**The Thompson  
Grinder Co.  
Springfield, Ohio**



## T.H.L. Front Lever Bench Punch

Malleable iron body; working parts hardened. Steel shaft and plunger. Die cannot lose alignment with punch. All parts interchangeable. Built for hardest, toughest work.

**PRICE \$45**

Extra Punches, 20 cents each; extra dies, 30 cents.

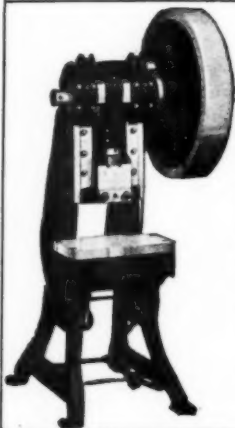
Capacity 13/32" thru 1/4" steel, 11/32" thru 5/16". Punches up to 1 2". Weight, 70 lbs.

*A good buy; can ship promptly*

**T. H. LEWTHWAITE  
MACHINE CO.**

(Est. 1890)

311 E. 47th St., NEW YORK



## Performance

is the real basis of Punch Press Value. Rockford Hi-Duty Presses' *advanced design* enable them to meet Modern Demands.

They earn their preference by their earning capacity.

*Write today for catalog*

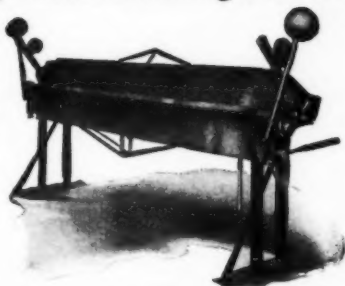
**The Rockford Iron Works**  
Rockford, Ill.

## Chicago Steel Bending Brakes

Hand and power, for bending from light sheets up to  $\frac{3}{4}$  in. plate.

More than 25,000 in use.

*Write for illustrated catalog*



**DREIS & KRUMP MFG. CO.**  
7422 Loomis Blvd., Chicago, Ill.

## CHAMPION WELDED Sheet Steel Guards

**Cost Much Less Than Cast Iron—  
Look Better—Cheaper to Mount—  
Weigh Less—Easier to Paint**

Send us drawings of your C. I. Guards. We will gladly submit designs and prices of "Champion Sheet Metal Guards."

**Champion Tank & Mfg. Co.**  
859-861 Hathaway St., Cincinnati, Ohio

## Standard Ball Bearing Grinders



Made in sizes from  
1/4 H. P. up to 5. H. P.

Tool Post Grinders  
1/4 to 2 H. P.

Polishing and Buffing Lathes  
1/4 to 5 H. P.

Aerial or Hand Grinders  
1/4 to 3 H. P.

Bench Grinders and Buffers  
1/4 to 2 H. P.

Drills—1/4" to 1 1/2".

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**The Standard  
Electrical Tool Co.**

1948 W. 8th St.,  
CINCINNATI, OHIO

## *Thor* ELECTRIC DRILLS

**A  
Tool  
You'll Like**



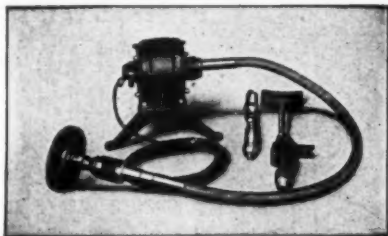
Speedy—*yes*. Powerful—*yes*. Versatile—*absolutely*. You'll never appreciate a THOR Electric Drill more than after the end of an exceptionally hard job. The way it eats up the work, quickly and efficiently, and never stalling on the job is what you'll like about it. Light, compact and built the way you would build it yourself. Shocks are impossible—a 3-wire safety cable is standard equipment. Our free trial offer paves the way for you to be convinced without cost or obligation. Get our catalog.

**Independent Pneumatic Tool Co.**  
600 W. Jackson Blvd., Chicago, Ill.



## The Whirlwind Buffer and Grinder

Will cut the cost on any unhandy  
grinding or polishing job



*Send for our latest bulletin*

**Stow Flexible Shaft Co.,** 3454 Ludlow St.,  
Philadelphia, Pa.

*The Best Since 1876*

## Sent on trial



### *The Cincinnati*

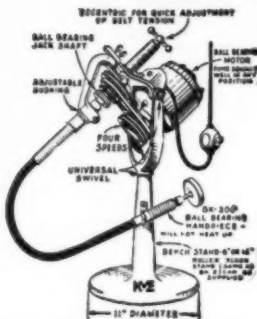
**Portable Electrics  
Stay on the job.**

Hand and Screw Feed Drills  $\frac{1}{4}$ " to  $2\frac{1}{2}$ " cap.  
Portable Scotch Radial Drills  $1\frac{1}{4}$ " to 2" cap.  
Tool-Post Grinders.....  $\frac{1}{4}$  to 3 H. P.  
Bench and Pedestal Grinders.....  $\frac{1}{4}$  to 5 H. P.  
Hand and Suspended Grinders.....  $\frac{1}{4}$  to 3 H. P.  
Polishing and Buffing Lathes.....  $\frac{1}{2}$  to  $7\frac{1}{2}$  H. P.

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**The  
Cincinnati Electrical Tool Co.**  
2678 Madison Road  
Cincinnati, Ohio

# Keller BK Flexible Shaft Grinder the Machine of 100 Uses



$\frac{1}{4}$ — $\frac{1}{3}$ — $\frac{1}{2}$  H. P.  
Speeds up to 10,500

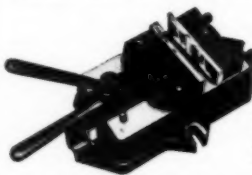


COMPLETE LINE OF ACCESSORIES

Rotary Files—  
Emery Wheels—Sanding Drums—  
Wire Brushes, Etc.

Keller Mech. Eng. Corp., 58A Washington St., Brooklyn, N. Y.

## Speed—Power—Convenience Hartford Milling Vise



Jaw width .....5"  
Jaw depth .....1 $\frac{1}{4}$ "  
Maximum opening...3 $\frac{1}{2}$ "  
Weight.....40 lbs.

Also made in the swivel-jaw type with hard or soft jaws, maximum opening 2 $\frac{1}{4}$ ".

In point of service the Hartford is unusual. Its specialized design includes a lower cam-faced handle that insures speedy opening and return, and a top eccentric lever handle that gives tremendous binding power. The steel parts are drop forged, hardened and ground—base is made of special iron. The Hartford will stand up under every demand that may be made upon it.

*Our catalog gives details and describes its many uses*

**Hartford Special Machinery Co.,** 285 Homestead Ave.,  
Hartford, Conn.

# Mall Machines Lead All In Metal Finishing



Mall Flexible-Shaft Machines have no equal for speed and high quality of work in

**Metal Finishing,  
Grinding, Drilling,  
Polishing, Buffing,  
Sanding, Cleaning,  
Screw Driving, Etc.**

The Mall patented pneumatic polishing wheels, as furnished with our machines, can be placed on any standard grinding machine arbor similar to an emery wheel. For economy's sake—investigate!

*Details on request*

**MALL TOOL CO.,**

8369 So. Chicago Ave.  
CHICAGO, ILL.

## Metal Finishing All Types of Assemblies All Types of Attachments



**For Drilling, Buffing, Polishing, Grinding, Wire  
Scratch Brush work and similar operations.**

Motor—110 V—60 Cyc.—1 ph.— $\frac{1}{4}$ HP. 1800.....	\$50.00
Motor—110 V—60 Cyc.—1 ph.— $\frac{1}{4}$ HP. 3400.....	65.00
Motor—110 V—or 220 V.—DC.— $\frac{1}{4}$ HP. 3400.....	65.00
Chuck— $\frac{1}{4}$ ...	\$6.50
Wire Scratch Brush—4"	2.00
Buff—6".....	1.00
Grinding Wheel—6"	2.25

This rugged tool operating from a light socket will render great efficiency in repairs and maintenance, for Automobile Paint Shops, Garages and Repair Stations, Body Plants, Hotels, Banks, Churches and Office Buildings, for quick repairs, drilling, buffing, grinding, removing rust, paint, etc. Also for polishing elevators and signs, store fronts and metal fixtures. In welding shops for the removing of high spots and finishing dry surfaces of all kinds. Larger size tools upon request.

**STOW MANUFACTURING CO., Inc., Binghamton, N. Y.**



# BIAX

BiAx makes flexible shaft machines for drilling, boring, grinding, polishing, screw-setting, nut-setting, etc.

Special machines for—

Automobiles	Motor Repair Shops
Speedometers	Pattern Shops
Woodworkers	Boilers (Cleaning)
Railroads	Machine Shops
Street Railways	Welders—Foundries

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## **BiAx Flexible Shaft Company** 136 Liberty Street, NEW YORK CITY

Mid-West Distributor—Tachometer Division  
Elgin National Watch Co., Chicago,  
Illinois.

New England Distributor:—BiAx Flexible  
Shaft Co., Worcester, Mass.  
Southern Distributor: BiAx Flexible Shaft  
Co., Charlottesville, Va.



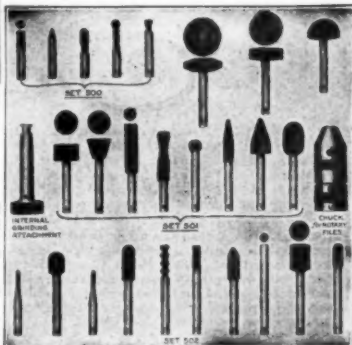
## **Strand** Rotary Files

Used with Strand  
Flexible Shaft  
Machines. Are  
giving excellent  
service.

*Write for Catalog*

**N. A. Strand & Co.**  
5001 No. Lincoln St.  
CHICAGO

## **HIGH SPEED HAND CUT ROTARY FILES**



## R & G Adjustable Boring Tool

Invaluable in the Tool Room and on Production Work  
on Turret Lathes, Horizontal Mills, Etc.



Graduated to  
one thousandth  
part of an inch.

It saves time and insures accuracy in boring jig plates, dies, etc., on milling machine table and drill press, that cannot be handled on the lathe. It readily trues to size holes drilled on turret lathe.

**Only \$38**

If standard taper shank is required, the price is Five Dollars extra.

Send us your order or write for complete description of this handy, time-saving outfit.

**Ribbe & Grey**

La Porte, Ind.



## Armstrong Lathe Dogs and Clamps

**Drop Forged Steel  
All Sizes and Shapes**

The Dogs are thoroughbreds; the  
Clamps have lots of back-  
bone. Screws are alloy steel.

**Complete Catalog Free**



**Armstrong Bros. Tool Co.**

"The Tool Holder People"

308 N. Francisco Ave., Chicago, U. S. A.

## U. S. Sensitive Motor Driven 14" Floor Drill

A convenient, reliable machine for the quick and accurate drilling of holes  $\frac{1}{2}$ " and smaller.

Price with motor,  
switch and belts - **\$115**

Or with Counter-  
shaft for Belt Drive **\$70**

Built in a machine tool shop for practical use, according to the best engineering practices. It will give you efficient, economical service in every operation within its capacity.

**The U. S. Machine Tool Co.**  
1952 W. 6th St., Cincinnati, Ohio



## Multiple Drilling On Your Single Spindle Drilling Machine—

Do your multiple drilling in *any pattern* on a single spindle drill with a

### U. S. Multiple Spindle Drill Head

Made regularly with 2 to 6 adjustable spindles. Special heads made to your order, with adjustable or fixed spindles.

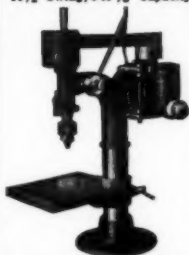
*Let us help you make  
a worth-while saving*

**The United States Drill Head Co.,** 1952 W. Sixth St., CINCINNATI, O.

Michigan Agents—National Sales Engineering Corp., Detroit, Mich.

## Winterhoff Portable Production Drills

No. 0 JUNIOR DRILL  
10½" Swing, 0 to ¾" Capacity



Equipped with ¼ h. p. motor, two step cone pulley giving speeds of 1100 and 2300 r. p. m., horizontal drive gives full power to the 1¼" endless belt furnished with machine. Driven cone has bearing support at each end; all parts accurately machined and interchangeable. *Positively the greatest value ever offered in a machine of this kind.*

Drills, Grinders, Disc Grinders, Saws, Sanders. All motor driven.

*Send for circulars describing these machines or see your Dealer.*

\$55, F. O. B. Elkhart

**Winterhoff Tool & Machine Co.**

109 South Elkhart Ave.,

Elkhart, Ind., U. S. A.

*How would  
you like—*

to tap small holes as easily as you drill them; to tap them 2 or 3 times faster than usual; to wear out the small taps you are now breaking?

The Ettco High Speed Tapping Attachment usually increases output 100%. When a Gun Tap can be used the increase is as high as 300%.

*Try one for 10 days—  
if you can then spare  
it, send it back.*

*Ettco*

Try one  
for 10  
days

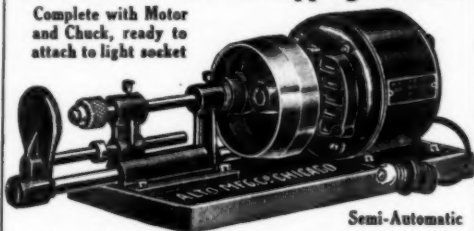


**Eastern Tube & Tool Co.**

600 Johnson Ave., Brooklyn, N.Y.

## No.1 ALTO High Speed Tapping Machine

Complete with Motor  
and Chuck, ready to  
attach to light socket



Semi-Automatic

Its superiority rests on three points, (1) it is exceptionally speedy with a reverse three times as fast; (2), it comes to you fully equipped, and ready to attach to the light socket; (3), it is designed with such convenience and simplicity that it sells at a lower price, and operates at a lower cost.

We also make large motor driven tappers.

*Let us send you descriptive matter and quote the price*

**The Alto Mfg. Co., 1647-51 Wolfram St.  
Chicago, Ill.**

## Keep Stock at Machine



### Save Steps and Confusion

When you work with bar or pipe stock on screw machine or lathe, pile it on—

### A Handiest Rack

—where the operator can put his hand out and reach it. This saves time, steps and confusion.

Keeps stock neatly piled and assorted and makes inventory easier.

*So good we ship on trial*

**Wm. S. Yohe Supply Co.**  
503 Mahoning Road, N. E., Canton, Ohio





## Is Your Shop Up-To-Date?

Or are you still finishing parts by hand? Hand finishing methods in most cases are slow, inefficient and expensive.

Simplex-M Abrasive Band Grinders eliminate imperfections of scratches, uneven surfaces and rounded corners so often found in hand work, and assure straight grain finishes with sharp edges.

Used on Metal, Wood and Composition parts. The Simplex-M is one of our many styles and sizes.

**WALLS SALES CORP.,** 96 Warren Street  
NEW YORK

## Swivel Jointed Extension Reel

PATENTED  
Jan. 30, 1917



**Type 6**

**The 1927 Model of the New  
AUTEX Extension Reel—**

permits the carrying of your lamps  
in any direction!

This valuable time and labor saver  
is rapidly finding a place in large In-  
dustrial Plants, Machine Shops and  
Service Stations everywhere.

**Now equipped with Belden Rubber Cord  
Approved by the Underwriters**

*Write for descriptive circular*

**The Cincinnati Specialty Mfg. Co., Inc.**  
1903 Powers St., Cincinnati, Ohio



## The "GUSHER"

*The Last Word in Machine  
Tool Coolant Pumps—*

OF HIGHEST efficiency, requires the least power, and stands the wear and tear of modern shops almost indefinitely.

"GUSHERS" are ball bearing, have no gears, no foot or relief valves, no packing nuts, need no priming, and are not injured by grit or small chips.

CAPACITIES, 3 to 30 gallons per minute. Furnished with individual motors for any current, also for belt drive.

*May we send Catalog and Prices ?*

**The Ruthman Mch. Co.**

528-534 E. Front St.  
CINCINNATI, OHIO



## IDEAL Electric Auto- matic Air Compressor and Exhaust PUMP

The single cylinder pump delivers two cubic feet of free air at 300 R. P. M. Quarter H. P. motor required for 200 lbs. pressure.

**Price, pump only, \$22.50**

← SINGLE CYLINDER  
TWIN CYLINDER →

The twin cylinder pump delivers four cubic feet of free air at 300 R. P. M. Half H. P. motor required for 200 lbs. pressure.

**Price, pump only, \$32.50**

Our Pumps are used for Spray Guns, Glass Blowing and general commercial and laboratory blowing and suction purposes.

**PETRICK BROTHERS**  
2226 Belmont Ave., Chicago, Ill.



## Keyseats Shafting In Place

Anywhere, in any position



**The BURR  
Portable  
Keyseater**

Cuts accurate  
Keyways up to  
12' long any-  
where, in any  
position, in  
shafts up to 5"  
diameter.

**DON'T WAIT** until you need it, when you would gladly pay  
10 times its cost to have one—**ORDER NOW.**

*Over 10,000 in use. Will you be the next to play safe?*

**JOHN T. BURR & SON**  
422 Kent Ave., Brooklyn, N. Y.

## BABY

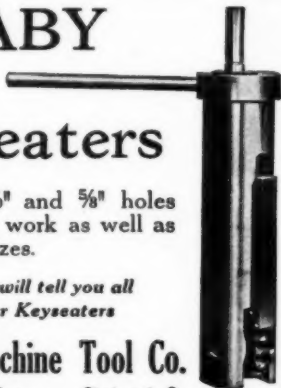
## Keyseaters

for  $\frac{1}{2}$ " 9-16" and  $\frac{5}{8}$ " holes  
will do the work as well as  
our larger sizes.

*Catalog O will tell you all  
about our Keyseaters*

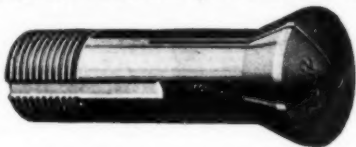
**National Machine Tool Co.**

2268 Spring Grove Ave., Cincinnati, O.



## Collets Since 1872

The test of time has proven their value



Collets for A W T and W W Lathes carried in stock.

Collets and Blanks for screw machines. Step Chucks.

Until we succeeded to their business *The American Watch Tool Co.* had been making Collets since 1872. As their successors, the same high quality is being rigidly maintained by us.

*Write for the Catalog of Precision Lathes and Tools*

**The Wade Tool Co.**

49-59 River St.,

Waltham, Mass.

## Gears That Set Standards

Years of experience, modern equipment, skilled mechanics, and specialization—these factors unite to make *Massachusetts Gears* leaders in their field.



Made in  
Small  
and  
Medium  
Sizes  
Up to  
3 feet  
Diameter

Small and medium gears for machine tools, automobile and motor truck engines, speedometer drives, and scientific instruments, etc. Made in all materials, and achieving such quality as could alone result from unsparing effort. *Let us estimate from your drawings—quick delivery from stock.*

**Massachusetts Gear & Tool Company**

36 Nashua Street,

Woburn, Mass.

## **"Bridgebilt" Factory Seating and Tool Racks**

A diversified line to meet requirements of every branch of industry.

**The Bridgebilt line  
will give long and  
satisfactory service**

*For illustrated price list  
and discounts write—*

**The Chicago Wire  
Chair Co.**

619 No. LaSalle St., Chicago, Ill.

No. 1010-SWS

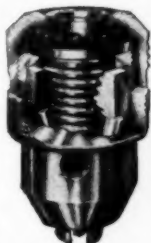


## **Etco Keyless Ball Bearing Drill Chucks**

**Tremendous Gripping Power**

**Eight good reasons for using the  
ETTCO**

1. Lighter in Weight.
2. All hardened parts.
3. Keyless.
4. Hand operated.
5. Ball bearing.
6. Self-centering.
7. Continuous grip.
8. Simple construction.



**Eastern Tube & Tool Company, Inc.**  
600 Johnson Avenue, BROOKLYN, N. Y.



Tolhurst Chip Wringers  
reclaim 6 to 15 gallons  
per load and handle three  
or four loads per hour.

**Write**  
**TOLHURST MACHINE WORKS**  
TROY, N.Y.



## TUCKER Oil Hole Covers

ALSO—HERCULES  
SHEAR AND ROD CUTTERS  
AND  
SCREW MACHINE PRODUCTS

**A Type for Every Service**

*Send for Revised Catalogue*

**W. W. & C. F. TUCKER, INC., Hartford, Conn.**

FOREIGN AGENTS: *Fenwick Freres & Co., Paris, France*  
*Alfred Herbert, Ltd., Yokohama, Japan*

## Towsley Trucks PAY 500%

—Every Year On  
Their Cost Price!



Glad to tell  
you how

### TOWSLEY TRUCKS

repay their  
cost every  
two to three  
months.

Every style  
for every  
need.

*Write for facts and figures; you'll never regret it*

**John T. Towsley Mfg. Co., Cincinnati,  
Ohio, U. S. A.**

## Combined Truck and Hoist—

### "CanTon" Portable

You can easily figure the saving it effects—one man with a CanTon does the work which ordinarily takes 6 to 10 men.

*CanTon lifts* any shape or size piece, weighing up to 6000 pounds, *moves* it anywhere about the shop, *and places* it where you want.

Safety friction brake holds the load at any point, insuring safety to the operator and work.

**Made in several sizes**

*Write for booklet E-8*

**CANTON FOUNDRY & MACHINE CO., Canton, Ohio**

New York Office: 203 East 15th Street, Second Floor





## The Drill Chuck

### You've Been Looking For

THE "TITAN" has the best features of other high-grade chucks, plus—

### A Real Quick Change

No separate key to get lost. No hammer or special device required. Simply strike end of drill and out it comes. A one-armed man can do it.

Sizes Nos. 0 to 5, for any taper shank drill, counterbore, reamer, etc. The broken tang collet gives a positive drive to drills with broken tangs. Saves time. Uses up broken drills. Saves money.

*Write for descriptive price list*

**Titan Tool Company**  
Erie, Penna.

## High Quality—Right Prices—Good Service Hollow Bored Forgings and Steel Shafts



**Piston Rods**

**Rams**

**Clutch Shafts**

**Steel Pipe**

**Lathe Spindles**

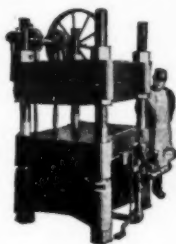
**Etc., Etc.**

*Send blueprints with trial order or for quotation*

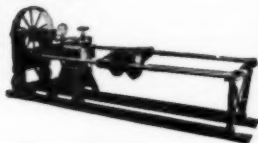
**American Hollow Boring Co.**  
Erie, Penna.



# Lourie Hydraulic Presses



A complete line of Horizontal and Vertical Presses built for any tons capacity or specifications. Either hand or power operated.



*Send for Catalog*

**LOURIE HYDRAULIC CO.**  
**SPRINGFIELD, ILL.**



## Atlas Arbor Presses

**For All Forcing Operations**

Illustration shows our No. 55 Power Drive Press, which is adaptable for fast production work and capable of supplying ten tons pressure.

*Write for our Bulletin—  
showing 30 different sizes*

**Atlas Press Co.**

*Department B,  
Kalamazoo, Michigan*

## The "Utility" Sleeve

**A Detachable  
Taper Shank  
for  
Straight  
Shank  
Tools**



**Cuts  
Small  
Tool Costs**

Insert a straight shank drill or reamer in this Sleeve, and it works as efficiently as a solid taper shank tool.

Only the straight shank tool of high speed steel is discarded when worn or broken—not the entire taper shank tool. Cuts tool costs, saves time, increases output.

*Write for "Utility Tools" Catalog*

**The J. C. Glenzer Company**  
6469 Epworth Blvd., **DETROIT, MICH.**

## A Good Test

If a bootlegger will drink his own merchandise, you are taking no chances.

Burke Tools can be seen operating in our own plant six days a week.

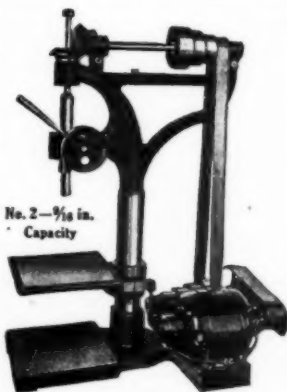
Manufacturers of Bench Drills, Milling Machines and attachments, and Tapping Machines.

Send for catalog and prices

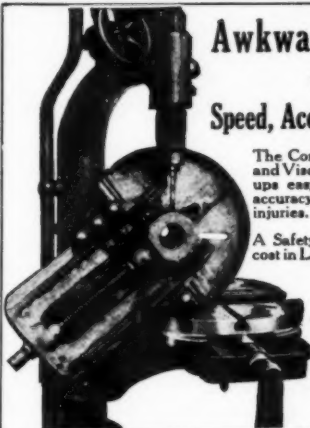
*At your service—*

**The Burke Machine  
Tool Company**

297 East 16th Street  
Cincinnati, Ohio



No. 2— $\frac{9}{16}$  in.  
Capacity



## Awkward Set-ups with Speed, Accuracy & Safety

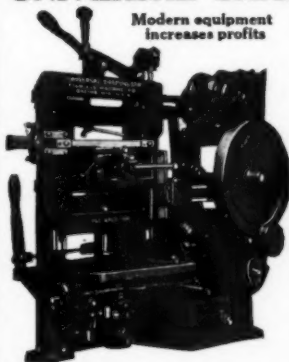
The Combination Drill Table and Vise makes awkward set-ups easy, saves drills, adds accuracy, eliminates personal injuries.

A Safety Tool that Saves its cost in Labor every Six Months.

*Write for free  
trial offer*

**Modern Machine  
Tool Company**  
Jackson, Michigan

## —PEERLESS— UNIVERSAL SHAPING SAW



Modern equipment  
increases profits

**Different Principles  
Greater Efficiency**

*Give The Most Of—*  
**Speed  
Accuracy  
Blade Economy**

**SIZES:**

**6"x6"--9"x9"--13"x13"**

**PEERLESS**

**HIGH SPEED HACK-SAWS**

**6"x6" 9"x9" 13"x16"**

**Sturdy--Efficient--Reliable**

**Peerless Machine Co.**

1218 Sixteenth St.

**Racine, Wisconsin**

*Write for Details*

Taylor & Fenn Belt Driven  
**No. 12 Spring Press**



**UNIFORM BLOW  
SPRING PRESSES**

Are made in  
three sizes,  
with either  
single or  
double action

Our No. 12 Belt Driven Spring Press, illustrated above, has a stroke of  $3\frac{1}{4}$  inches. The foot treadle operates a safety clutch attached to the flywheel, which automatically stops the machine after each stroke regardless of whether the treadle is released or held down by the operator. The clutch can be adjusted for a continuous stroke if desired.

*Descriptive circular gladly sent upon request*

**The Taylor & Fenn Co.**  
Hartford, Conn., U. S. A.

# Angle Iron Bender No. 61

## BALL BEARING



C  
A  
P  
A  
C  
I  
T  
Y  
  
3' x 3' x 3/8"  
  
A  
N  
G  
L  
E  
S

This machine will not only bend angle iron, but by using special jaws will bend Pipes, Flats, Rounds, T-Iron, etc.

*Write for Prices*

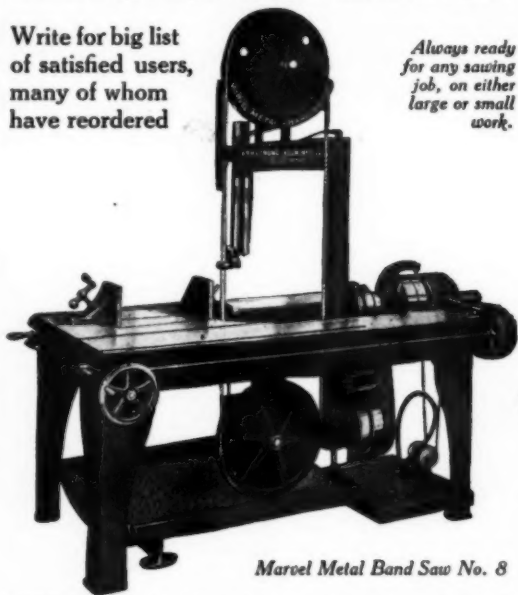
**WHITNEY METAL TOOL CO.**

95 Forbes St., Rockford, Ill.

# The Marvel Metal Band Saw

Write for big list  
of satisfied users,  
many of whom  
have reordered

*Always ready  
for any sawing  
job, on either  
large or small  
work.*



*Marvel Metal Band Saw No. 8*

UNIVERSAL in its adaptation to every variety of metal sawing. It saws bars, beams, channels, tubes, etc., rapidly and accurately, and does the finest tool room work. Saws at an angle either way without swinging the bar around the shop. Has big capacity up to 18". The large bed gives lots of room for material and tools. A saw for every need.

*Write for Circular or the Complete Catalog of MARVEL Saws*

**ARMSTRONG-BLUM MFG. CO., 341 N**

*Do your Hack Saw Blades break?  
Or do they wear out too fast?*

Use the New Patented

## **Marvel High-Speed-Edge Hack Saw Blade**

**For Use In All Power Machines  
Genuine High Speed Steel Cutting Edge  
Positively Unbreakable**



[Made in 12, 14, 17, 18,  
21 and 24 inch lengths.]

[6, 8, 10, and 14 teeth  
to the in., in all lengths.]

### *Ten Points of Superiority*

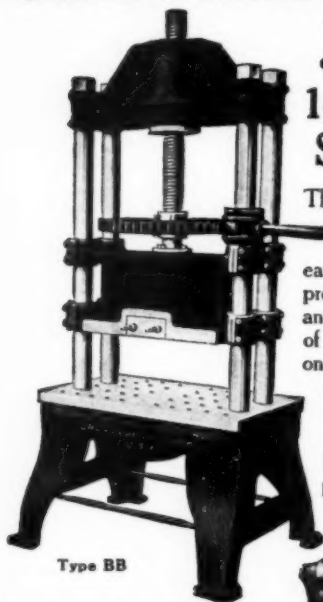
1. Guaranteed.
2. Original, patented.
3. Cuts twice as fast.
4. Positively unbreakable.
5. A straighter, truer cut.
6. Most economical, most efficient.
7. New form machine cut "raked" teeth.
8. Genuine high speed steel cutting edge.
9. At least six times the amount of cutting.
10. Modern methods of manufacturing assure uniformity.

One Company wrote:—"We have found that these blades last ten times as long as any saw which we have used in the past. They certainly have eliminated our troubles in our cutting-off department."

*Once tried, you will want no other. Complete details and prices on request*

**341 N. Francisco Ave., CHICAGO, ILL.**

# One Man Handles All Dies



Type BB

## When you are equipped with a 1-Man 4-Post Screw Press

The perfect alignment between punch and die — the ease with which 80 tons pressure can be applied and the supreme rigidity of this machine, enable one man to do more, better and speedier work than two men can do on any other type of press.

Made in three smaller sizes

## Surface Grinder

A substantially built machine that is powerful, rigid and accurate. Equipped with graduated dials and non-vibrating wheel.

*Details and price on request*

**JARECKI MACHINE  
AND TOOL CO.**

Department A

GRAND RAPIDS,

MICHIGAN

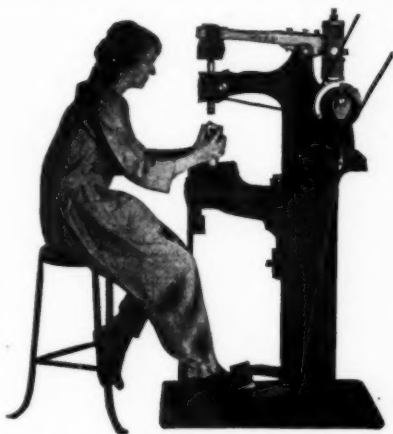




# Cold Riveting

By

The High Speed Hammer Method



Strong, well finished heads on rivets, pins, studs, etc. 1-64" to 1½" in diameter.

**SEND RIVETING SAMPLES**

*Write for our Catalog "C"*

**The High Speed Hammer Company, Inc.**  
**Rochester, N. Y., U. S. A.**

# FEDERAL

**DIAL  
INDICATORS**  
*for Gauging —*  
**DEPTH-PITCH  
THICKNESS  
ROUNDNESS  
LEAD-ETC.**

FEDERAL  
PRODUCTS CORPORATION  
PROVIDENCE  
R.I.

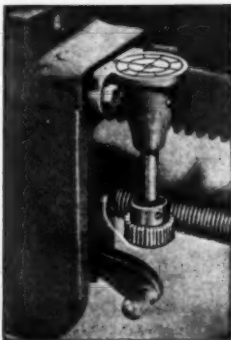
## E-Z THREAD DIAL

Thread cutting on engine lathes made easy, and at lower cost.

Can be easily attached to all size lathes.

A reliable device that will aid the operator in the work of cutting threads.

Threads can be cut close up to shoulders as easily as the ordinary thread.



Eliminates stopping or reversing the lathe.

Saves cost of backing belt.

Saves power to drive same.

Fast growing in popularity.

A large corporation ordered nine at one time.

Another five.

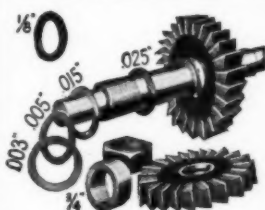
Sent on thirty days' trial.

Send for folder today.

**JAMES M. COLVEN, 20 Wolfe Street,  
Yonkers, N. Y.**

# Steel Spacing Washers—

Made of a good grade of Cold Rolled Strip Steel, also known as Shim Steel



Stock sizes for arbors of following diameters:  $\frac{3}{8}$ ,  $\frac{1}{2}$ ,  $\frac{5}{8}$ ,  $\frac{3}{4}$ ,  $\frac{7}{8}$ , 1,  $1\frac{1}{8}$ ,  $1\frac{1}{4}$ ,  $1\frac{3}{8}$ ,  $1\frac{1}{2}$ ,  $1\frac{3}{4}$ ,  $1\frac{7}{8}$ , 2,  $2\frac{1}{4}$ ,  $2\frac{1}{2}$ , 3,  $3\frac{1}{2}$  and 4 in. and larger.

Stock thicknesses: .002, .003, .004, .005, .006, .007, .008, .010, .012, .015, .020, .025, .032, .047, .063, .093 and .125 inch.

Other thicknesses up to 3.000" made to order, with keyways if so ordered.

Ask us to send samples; you'll like them

**Detroit Stamping Company**  
3443 West Fort St., Detroit, Mich.

## Save Time Setting Gang Milling Cutters

Eliminate  
Thin  
Washers



Hardened  
and  
Ground

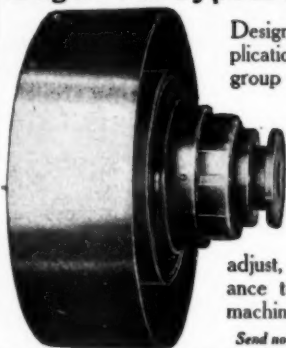
PATENTED

"Wear-Ever" Adjustable Spacing Collars permit setting cutters to the thousandth part of an inch without removing from the arbor.

Stock sizes for  $\frac{3}{4}$ " to  $2\frac{1}{2}$ " arbors, sent on approval  
They are adjustable in 12 steps of 2/1000 inches

**SCULLY-JONES & CO. TOOL DIVISION**  
13th and Robey Streets CHICAGO, ILL.

## Edgemont Type E Disc Clutch



Designed for machine applications, high speeds and group drives, but is also adaptable for any other drives where an efficient, powerful clutch is needed. Extremely easy to operate and adjust, with neat appearance to match the best machine tools.

Send now for "Type E" bulletin

**THE EDMONT MACHINE CO., Dayton, Ohio**

## "D. & W." DEMAGNETIZERS!



Built in two types for use on alternating and direct current.



Its design is based upon principles of simplicity and durability. The D. & W. is an independent unit requiring no countershaft or belts. Thus equipment and maintenance costs are lowered, and convenience is increased.

Are you confronted by any special problems in connection with the use of magnetic chucks? *We will gladly investigate and report on them, or design special chucks to suit your needs.*

**J. & H. Electric Co.,** 161 Clifford St.,  
Providence, R. I.

# **Curtis Universal Joints**

of Simple, Rugged Construction



*Send for new Catalog No. 47*

## **BOSTON GEARS**

**BOSTON GEAR WORKS SALES CO.**

**Norfolk Downs, Mass.**

**BOSTON NEW YORK PHILADELPHIA CLEVELAND CHICAGO**

## **The Acme of Convenience**

**Springfield  
Straightening  
Press—**



**Made in  
Three sizes  
Each a real  
Time saver**

Wherever straightening is needed, the Springfield gives satisfaction. Whether in shop, tool room, or garage. It can be operated with such accuracy and speed that users have named it *the acme of convenience*.

Placed near lathe or bench, for example, a tool maker can straighten any length of rough or finished work without leaving his post.

***A Springfield quality product! Let us send a catalog***

**The Springfield Machine Tool Company**

**633 West Southern Avenue,**

**SPRINGFIELD, OHIO**

**We also manufacture Engine Lathes and Shapers**

## Anderson IMPROVED Ever-Ready Balancing Ways

Balance 'most anything that revolves



Extremely sensitive. Discs accurately balanced. Always ready—need no adjustment—no leveling needed—no centers required. Last indefinitely. The hardened spindles hold their accuracy—don't become indented with ordinary use. Six sizes. Get the folder and close price.

"Swing"	20"	40"	60"	72"	96"	72"
Greatest distance bet. standards..	20"	30"	30"	66"	88"	20'
Capacity in lbs. ....	1000	2000	2000	5000	10000	24000
Approx. shipping weight.....	45	90	150	350	650	
Code .....	Bend	Bid	Bis	Bib	Ben	

Any of above can be furnished with longer shafts

**Anderson Bros. Mfg. Co.**

1915 Kishwaukee St., Rockford, Ill.

## For Sure Balance--

an absolutely level and solid "Way" is necessary

**Bowsher "Balancing Ways"**



are brought to an absolute *level* in ten seconds. No revolving parts.

The edges or "knives" upon which the work is tested are ground *true*, and are mounted upon the planed "ways" of a heavy bed or frame.

Standards adjustable to suit length of arbor.

Three sizes for floor—one for bench use

Send for Catalog "F"

**The N. P. Bowsher Co., South Bend, Ind.**



## When a Tap Breaks —That's Enough

*Your loss will stop* there if you have a handy WALTON TAP EXTRACTOR in your shop.

*Simply insert the flutes of this time-saving tool into the broken tap, twist the end, and the tap slides out. A WALTON obviates delays and operates so simply that an apprentice can handle it.*

Made in a three and four-flute style.

*Let us send it to you for a sixty-day trial*

**The Walton Company**  
Hartford, Conn., U. S. A.

## Vanderbeek Universal Joints



—represent the practical refinements of 25 years experience in manufacturing Universal Joints. All parts are generous sized, fully protected against dirt, and are practically self-oiling. Exceptionally strong, they transmit full power up to 70°.

Vanderbeek Joints are in daily use on thousands of machines.

*Write today for our Descriptive Catalog.*

**American Tool Works, Inc.**  
Hartford, Conn., U. S. A.



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Edgemont Machine Co., Dayton, O.

**Cold Saws**  
Burke Machine Tool Co., Connecticut, Ohio

**Collets**  
Hardinge Brothers, Inc., 1770 Bertsan Ave., Chicago  
Wade Tool Co., Waltham, Mass.

**Contract Work Wanted**  
Burke Machine Tool Co., Connecticut, O.

**Counterbores and Spot Facers**  
Glenzer Co., J. C., Detroit, Mich.

**Couplings, Flexible**  
Nicholson Co., W. H., Wilkes-Barre, Pa.

**Couplings, Shaft**  
Nicholson Co., W. H., Wilkes-Barre, Pa.

**Cranes, Portable**  
Canedy-Otto Mfg. Co., Chicago Heights, Ill.  
Canton Foundry & Mch. Co., Canton, Ohio

**Crank Pin Turning Machine**  
Fedrick Tool & Machine Co., Philadelphia

**Cutters, Keyseating**  
Davis Keyseater Co., Rochester, N. Y.  
Scully-Jones & Co., 2012 W. 18th, Chicago

**Cutters, Milling**  
Genesee Mfg. Co., Rochester, N. Y.

**Cylinder Boring Machines, Portable**  
Fedrick Tool & Machine Co., Philadelphia

**Demagnetizers**  
J. & H. Electric Co., Providence, R. I.

**Dial Indicators**  
Federal Products Corp'n, Providence, R. I.

**Die Heads, Threading, Self Opening**  
National Acme Company, Cleveland, O.



# Classified Finding Index

## Dies

Sloan & Chase, Inc., Newark, N. J.

## Die Sets

Danly Machine Specialties, Inc., 4918 Lincoln Ave., Chicago

## Drill Racks

Peerless Machine Co., Racine, Wis.

## Drill Tables and Vise

Modern Machine Tool Co., Jackson, Mich.

## Drilling Machine Heads, Multiple

Buhr Machine Tool Co., Ann Arbor, Mich.  
Gateman Mfg. Co., Manitowoc, Wis.  
United States Drill Head Co., Cincinnati

## Drilling Machines, Bench

Avey Drilling Machine Co., Cincinnati  
Barnes Co., W. F. & John, Rockford, Ill.  
Burke Machine Tool Co., Conneaut, Ohio  
Canedy-Otto Mfg. Co., Chicago Heights, Ill.  
Gateman Mfg. Co., Manitowoc, Wis.  
High Speed Hammer Co., Rochester, N. Y.  
Merit Oil Equipment Co., Cleveland, O.  
Sigourney Tool Co., Hartford, Conn.  
Sloan & Chase, Inc., Newark, N. J.  
Stecher Co., Chas., 2452 N. Greenview Ave., Chicago

Taylor & Fenn Co., Hartford, Conn.  
Winterhoff Tool & Machine Co., Elkhart, Ind.

## Drilling Machines, Flexible Shaft

Blax Flexible Shaft Co., 136 Liberty Street, New York  
Stew Manufacturing Co., Binghamton, N. Y.

## Drilling Machines, Horizontal

Barnes Co., W. F. & John, Rockford, Ill.  
Gateman Mfg. Co., Manitowoc, Wis.  
Morris Machine Tool Co., Cincinnati, O.

## Drilling Machines, Multiple Spindle

Avey Drilling Machine Co., Cincinnati  
Foote-Burt Co., Cleveland, O.  
Fosdick Machine Tool Co., Cincinnati, O.  
Gateman Mfg. Co., Manitowoc, Wis.  
Kent Machine Co., Kent, Ohio.  
Merit Oil Equipment Co., Cleveland, O.  
Sigourney Tool Co., Hartford, Conn.  
Taylor & Fenn Co., Hartford, Conn.

## Drilling Machines, Portable Electric

Blax Flexible Shaft Co., 136 Liberty St., New York  
Cincinnati Electrical Tool Co., Cincinnati, O.  
Independent Pneumatic Tool Co., 609 W. Jackson Blvd., Chicago  
Mall Tool Co., 8389 S. Chicago Ave., Chicago  
Standard Electrical Tool Co., Cincinnati, O.  
Stow Flexible Shaft Co., Philadelphia, Pa.  
Strand Co., N. A., 5001 N. Lincoln St., Chicago  
Winterhoff Tool & Machine Co., Elkhart, Ind.

## Drilling Machines, Post

Canedy-Otto Mfg. Co., Chicago Heights, Ill.

## Drilling Machines, Radial

American Tool Works Co., Cincinnati, O.  
Canedy-Otto Mfg. Co., Chicago Heights, Ill.  
Fosdick Machine Tool Co., Cincinnati, O.  
Morris Machine Tool Co., Cincinnati, O.  
Taylor & Fenn Co., Hartford, Conn.

## Drilling Machines, Sensitive

Avey Drilling Machine Co., Cincinnati  
Barnes Co., W. F. & John, Rockford, Ill.  
Burke Machine Tool Co., Conneaut, Ohio  
Canedy-Otto Mfg. Co., Chicago Heights, Ill.  
Foote-Burt Co., Cleveland, O.  
Fosdick Machine Tool Co., Cincinnati, O.  
Gateman Mfg. Co., Manitowoc, Wis.  
Leland-Gifford Co., Worcester, Mass.  
Merit Oil Equipment Co., Cleveland, O.

Sigourney Tool Co., Hartford, Conn.  
Stecher Co., Chas., 2452 N. Greenview Ave., Chicago  
Taylor & Fenn Co., Hartford, Conn.  
U. S. Machine Tool Co., Cincinnati, O.

## Drilling Machines, Vertical

Avey Drilling Machine Co., Cincinnati  
Barnes Co., W. F. & John, Rockford, Ill.  
Canedy-Otto Mfg. Co., Chicago Heights, Ill.  
Foote-Burt Co., Cleveland, O.  
Fosdick Machine Tool Co., Cincinnati, O.  
Gateman Mfg. Co., Manitowoc, Wis.  
Leland-Gifford Co., Worcester, Mass.  
Merit Oil Equipment Co., Cleveland, O.  
Sigourney Tool Co., Hartford, Conn.  
Standard Electrical Tool Co., Cincinnati, O.  
Stecher Co., Chas., 2452 N. Greenview Ave., Chicago  
Taylor & Fenn Co., Hartford, Conn.

## Dust Handling Equipment

Kuickerbocker Co., Jackson, Mich.

## Emery Wheel Dressers and Cutters

Ross Manufacturing Co., Cleveland, O.  
Taylor & Fenn Co., Hartford, Conn.  
Western Tool & Mfg. Co., Springfield, O.

## Etching Machines, Electric

Brewster Co., Wm., Inc., 50 Church St., New York

## Feeders, Oil and Soda Water

New Britain Machine Co., New Britain, Conn.

## Filing Room Equipment

Wardwell Mfg. Co., Cleveland, O.

## Forges

Canedy-Otto Mfg. Co., Chicago Heights, Ill.

## Forgings, Hollow Bored

American Hollow Boring Co., Erie, Pa.

## Furniture, Machine Shop

New Britain Machine Co., New Britain, Conn.  
Standard Pressed Steel Co., Jenkintown, Pa.  
Western Tool & Mfg. Co., Springfield, O.

## Gauges, Dial

Federal Products Corp'n, Providence, R. I.

## Gauges, Piston and Piston Ring

Federal Products Corp'n, Providence, R. I.

## Gauges, Taper

Hartford Special Mch. Co., Hartford, Conn.

## Gauges, Thread

Federal Products Corp'n, Providence, R. I.

## Gear Cutting Machines

Sloan & Chase, Inc., Newark, N. J.

## Gears

Boston Gear Works Sales Company, Norfolk  
Massachusetts Gear & T. Co., Woburn, Mass.

## Grinding Machines, Belt

Gallmeyer & Livingston Co., Grand Rapids, Mich.  
Peerless Surfacing Machine Co., Troy, N. Y.  
Walls Sales Corp., 96 Warren St., New York

## Grinding Machines, Bench

Gallmeyer & Livingston Co., Grand Rapids, Mich.  
Standard Electrical Tool Co., Cincinnati, O.

## Classified Finding Index

### Grinding Machines, Cutter, Reamer and Tool

Gallmeyer & Livingston Co., Grand Rapids, Mich.  
Jarecki Mch. & T. Co., Grand Rapids, Mich.  
Landis Tool Co., Waynesboro, Pa.  
LeBlond Mch. Tool Co., R. K., Cincinnati, O.  
Thompson Grinder Co., Springfield, Ohio

### Grinding Machines, Cylindrical

Jarecki Mch. & T. Co., Grand Rapids, Mich.  
Landis Tool Co., Waynesboro, Pa.  
Thompson Grinder Co., Springfield, Ohio

### Grinding Machines, Die

Gallmeyer & Livingston Co., Grand Rapids, Mich.  
Jarecki Mch. & T. Co., Grand Rapids, Mich.  
Thompson Grinder Co., Springfield, Ohio

### Grinding Machines, Disc

Gallmeyer & Livingston Co., Grand Rapids, Mich.  
Gardner Machine Co., Beloit, Wis.  
Porter Cable Machine Co., Syracuse, N. Y.

### Grinding Machines, Drill

Gallmeyer & Livingston Co., Grand Rapids, Mich.  
La Salle Tool Co., La Salle, Ill.

### Grinding Machines, Face

Taylor & Fenn Co., Hartford, Conn.

### Grinding Machines, Flexible Shaft

Blax Flexible Shaft Co., 136 Liberty Street, New York  
Kellen Mch. Eng. Corp., 58A Washington St., Brooklyn, N. Y.  
Stow Manufacturing Co., Binghamton, N. Y.

### Grinding Machines, Internal

Landis Tool Co., Waynesboro, Pa.  
Mall Tool Co., 8389 S. Chicago Ave., Chgo.  
Taylor & Fenn Co., Hartford, Conn.  
Thompson Grinder Co., Springfield, Ohio

### Grinding Machines, Portable Electric

Blax Flexible Shaft Co., 136 Liberty St., New York  
Cincinnati Electrical Tool Co., Cincinnati, O.  
Independent Pneumatic Tool Co., 600 W. Jackson Blvd., Chicago  
Mall Tool Co., 8389 S. Chicago Ave., Chgo.  
Porter-Cable Machine Co., Syracuse, N. Y.  
Standard Electrical Tool Co., Cincinnati, O.  
Stow Flexible Shaft Co., Philadelphia, Pa.  
Strand Co., N. A., 6001 N. Lincoln St., Chgo.

### Grinding Machines, Snagging

Gallmeyer & Livingston Co., Grand Rapids, Mich.  
Jarecki Mch. & T. Co., Grand Rapids, Mich.

### Grinding Machines, Surface

Gallmeyer & Livingston Co., Grand Rapids, Mich.  
La Salle Tool Co., La Salle, Ill.  
Thompson Grinder Co., Springfield, Ohio

### Grinding Machines, Tap

Gallmeyer & Livingston Co., Grand Rapids, Mich.

### Grinding Machines, Tool

Kent Machine Co., Kent, Ohio.  
Standard Electrical Tool Co., Cincinnati, O.  
Taylor & Fenn Co., Hartford, Conn.

### Grinding Machines, Universal

Gallmeyer & Livingston Co., Grand Rapids, Mich.  
Landis Tool Co., Waynesboro, Pa.  
Thompson Grinder Co., Springfield, Ohio

### Guards, Sheet Metal

Champion Tank & Mfg. Co., Cincinnati, O.

### Hack Saw Blades

Peerless Machine Co., Racine, Wis.

### Hack Saw Machines

Armstrong Blom Mfg. Co., 341 N. Francisco Ave., Chicago  
Peerless Machine Co., Racine, Wis.  
Racine Tool & Machine Co., Racine, Wis.

### Hammers, Air

Independent Pneumatic Tool Co., 800 W. Jackson Blvd., Chicago

### Hammers, Riveting

High Speed Hammer Co., Rochester, N. Y.  
Independent Pneumatic Tool Co., 800 W. Jackson Blvd., Chicago

### High Speed Steel, Drills, Cutters

Bernstein, Geo. M., 549 W. Washington Blvd., Chicago

### Hoists, Portable

Canton Foundry & Machine Co., Canton, Ohio

### Hydraulic Machinery

Laurie Hydraulic Co., Springfield, Ill.

### Jigs and Fixtures

Hartford Special Mch. Co., Hartford, Conn.  
Sloan & Chase, Inc., Newark, N. J.

### Keyseating Machines

Burr & Son, John T., Brooklyn, N. Y.  
Chattanooga Mch. Co., Chattanooga, Tenn.  
Davis Keyseater Co., Rochester, N. Y.  
National Machine Tool Co., Cincinnati

### Lathe Accessories and Attachments

Cisco Machine Tool Co., Cincinnati, O.  
Sidney Machine Tool Co., Sidney, O.

### Lathes, Automatic Turret

National Acme Company, Cleveland, O.

### Lathes, Bench

Hardinge Brothers, Inc., 1770 Bortean Ave., Chicago  
Monarch Machine Tool Co., Sidney, O.

### Lathes, Engine

American Tool Works Co., Cincinnati, O.  
Barnes Co., W. F. & John, Rockford, Ill.  
Carroll Mch. Tool Co., A. V., Cincinnati, O.  
Cisco Machine Tool Co., Cincinnati, O.  
Hardinge Brothers, Inc., 1770 Bortean Ave., Chicago  
LeBlond Mch. Tool Co., R. K., Cincinnati, O.  
Monarch Machine Tool Co., Sidney, O.  
Morris Machine Tool Co., Cincinnati, O.  
Porter-Cable Machine Co., Syracuse, N. Y.  
Sidney Machine Tool Co., Sidney, O.  
Springfield Machine Tool Co., Springfield, O.

### Lathes, Extension Bed Gap

Rahn-Larson Co., Cincinnati, O.

### Lathes, Foot Power

Barnes Co., W. F. & John, Rockford, Ill.

### Lathes, Gap

Carroll Mch. Tool Co., A. V., Cincinnati, O.

### Lathes, Manufacturing

Sloan & Chase, Inc., Newark, N. J.

### Lathes, Precision

Sloan & Chase, Inc., Newark, N. J.  
Wade Tool Co., Waltham, Mass.

### Lathes, Short Bed

Monarch Machine Tool Co., Sidney, O.  
Porter-Cable Machine Co., Syracuse, N. Y.  
Sidney Machine Tool Co., Sidney, O.

# Classified Finding Index

## Lathes, Turret

Monarch Machine Tool Co., Sidney, O.

## Mandrels, Expanding

Nicholson & Co., W. H., Wilkes-Barre, Pa.  
Western Tool & Mfg. Co., Springfield, O.

## Mandrels, Solid

Nicholson & Co., W. H., Wilkes-Barre, Pa.

## Milling Attachments

Burke Machine Tool Co., Conneaut, Ohio  
Kearney & Trecker Corp., Milwaukee, Wis.  
LeBlond Mch. Tool Co., R. K., Cincinnati, O.  
Porter-Cable Machine Co., Syracuse, N. Y.  
Taylor & Fenn Co., Hartford, Conn.

## Milling Machines, Bench

Burke Machine Tool Co., Conneaut, Ohio  
Sloan & Chace, Inc., Newark, N. J.

## Milling Machines, Hand

Burke Machine Tool Co., Conneaut, Ohio  
U. S. Machine Tool Co., Cincinnati, O.

## Milling Machines, Manufacturing

Kearney & Trecker Corp., Milwaukee, Wis.

## Milling Machines, Plain

Burke Machine Tool Co., Conneaut, Ohio  
Gallmeyer & Livingston Co., Grand Rapids, Mich.  
Kearney & Trecker Corp., Milwaukee, Wis.  
LeBlond Mch. Tool Co., R. K., Cincinnati, O.

## Milling Machines, Portable

Fedrick Tool & Machine Co., Philadelphia

## Milling Machines, Spline

Taylor & Fenn Co., Hartford, Conn.

## Milling Machines, Universal

Kearney & Trecker Corp., Milwaukee, Wis.  
LeBlond Mch. Tool Co., R. K., Cincinnati, O.

## Milling Machines, Vertical

Burke Machine Tool Co., Conneaut, Ohio  
Kearney & Trecker Corp., Milwaukee, Wis.  
LeBlond Mch. Tool Co., R. K., Cincinnati, O.  
Taylor & Fenn Co., Hartford, Conn.

## Mills, Adjustable Hollow

Genesee Mfg. Co., Rochester, N. Y.

## Motors, Electric

Reliance Electric & Eng. Co., Cleveland

## Nut Setters, Flexible Shaft

Blax Flexible Shaft Co., 136 Liberty Street,  
New York

## Nuts, Plain or Castellated

National Acme Company, Cleveland, O.

## Oil Cups

Gits Bros. Mfg. Co., 1940 S. Elmhurst Av.,  
Chicago

## Oil Extractors

Tolhurst Machine Works, Troy, N. Y.

## Oil Hole Covers

Tucker, W. W. & C. F., Hartford, Conn.

## Pattern Shop Machinery

Towsley Mfg. Co., John T., Cincinnati

## Pinion Cutting Machines

Sloan & Chace, Inc., Newark, N. J.

## Pins, Leader And Dowel

Daily Machine Specialties, Inc., 4915 Lincoln  
Ave., Chicago

## Pipe Bending Machines

Fedrick Tool & Machine Co., Philadelphia

## Pipe Cutting and Threading Machines

Chicago Pipethread Co., Racine, Wis.

## Piston Machines

National Acme Company, Cleveland, O.

## Piston Ring Machines

National Acme Company, Cleveland, O.

## Planing Machines

Cincinnati Planer Co., Cincinnati, O.  
Cleveland Planer Co., Cleveland, O.

## Planers, Valve Seat, Portable

Fedrick Tool & Machine Co., Philadelphia

## Pointers, Semi-Automatic

Kent Machine Co., Kent, Ohio.

## Polishing and Buffing Machines

Cincinnati Electrical Tool Co., Cincinnati, O.  
Cinco Machine Tool Co., Cincinnati, O.  
Independent Pneumatic Tool Co., 600 W.  
Jackson Blvd., Chicago  
Mail Tool Co., 8389 S. Chicago Ave., Chicago  
New Britain Machine Co., New Britain, Conn.  
Standard Electrical Tool Co., Cincinnati, O.  
Stow Manufacturing Co., Binghamton, N. Y.

## Presses, Arbor

Atlas Press Co., Kalamazoo, Mich.  
Barnes Co., W. F. & John, Rockford, Ill.  
Lourie Hydraulic Co., Springfield, Ill.  
Nicholson & Co., W. H., Wilkes-Barre, Pa.

## Presses, Broaching

Lourie Hydraulic Co., Springfield, Ill.

## Presses, Drawing

Lourie Hydraulic Co., Springfield, Ill.

## Presses, Flanging

Lourie Hydraulic Co., Springfield, Ill.

## Presses, Foot

Rockford Iron Works, Rockford, Ill.  
Taylor & Fenn Co., Hartford, Conn.

## Presses, Forcing

Lourie Hydraulic Co., Springfield, Ill.

## Presses, Forming

Dreis & Krump Mfg. Co., 7422 Loomis Blvd.,  
Chicago  
Lourie Hydraulic Co., Springfield, Ill.

## Presses, Power

Hendley & Whittemore Co., Beloit, Wis.  
Lourie Hydraulic Co., Springfield, Ill.  
Rockford Iron Works, Rockford, Ill.

## Presses, Punch

Lewthwaite Mch. Co., T. H., 417 E. 31st., N. Y.  
Rockford Iron Works, Rockford, Ill.

## Presses, Screw

Barnes Co., W. F. & John, Rockford, Ill.  
Jarecki Mch. & T. Co., Grand Rapids, Mich.  
Towsley Mfg. Co., John T., Cincinnati

## Presses, Wheel

Lourie Hydraulic Co., Springfield, Ill.

## Pulley Machinery

Avery Drilling Machine Co., Cincinnati

# Classified Finding Index

## Pumps, Coolant

Fulfilo Specialties Co., Blanchester, O.

## Pumps, Exhaust

Patrick Bros., 2226 Belmont Ave., Chicago

## Pumps, Hydraulic

Lourie Hydraulic Co., Springfield, Ill.

## Pumps, Lubricant

Ruthman Machinery Co., Cincinnati, O.

## Punch Press Feeds

Rockford Iron Works, Rockford, Ill.

## Punch, Shear and Bender, Hand

Armstrong-Blum Mfg. Co., 341 N. Francisco Ave., Chicago

## Punches, Hand

Armstrong-Blum Mfg. Co., 341 N. Francisco Ave., Chicago  
Hendley & Whittemore Co., Beloit, Wis.  
Lewthwaite Mch. Co., T. H., 417 E. 31st St., New York  
Whitney Metal Tool Co., Rockford, Ill.

## Punches, Power

Hendley & Whittemore Co., Beloit, Wis.

## Punches and Dies

Hendley & Whittemore Co., Beloit, Wis.  
Lewthwaite Mch. Co., T. H., 417 E. 31st, N. Y.  
Rockford Iron Works, Rockford, Ill.

## Racks, Bar Stock

New Britain Machine Co., New Britain, Conn.  
Yohs Supply Co., Wm. B., Canton, O.

## Reamers, Adjustable

Schellenbach-Hunt Tool Co., Cincinnati, O.

## Reamer Holders

Nicholson & Co., W. H., Wilkesbarre, Pa.

## Reels, Extension

Cincinnati Specialty Mfg. Co., Cincinnati, O.

## Riveting Machines

Grant Mfg. & Mch. Co., Bridgeport, Conn.  
High Speed Hammer Co., Rochester, N. Y.

## Rod Cutters

Armstrong-Blum Mfg. Co., 341 N. Francisco Ave., Chicago  
Hendley & Whittemore Co., Beloit, Wis.  
Lewthwaite Mch. Co., T. H., 417 E. 31st, N. Y.

## Saw Sharpening Machines

Wardwell Mfg. Co., Cleveland, O.

## Scraping Machines, Hand & Pneumatic

Anderson Brothers Mfg. Co., Rockford, Ill.

## Screw Drivers, Flexible Shaft

Blax Flexible Shaft Co., 136 Liberty Street, New York

## Screw Driving Machines, Automatic

Reynolds Machine Co., Mansfield, Ohio

## Screw Machine Products

National Acme Company, Cleveland, O.

## Screw Machines, Automatic

National Acme Company, Cleveland, O.  
New Britain Mch. Co., New Britain, Conn.

## Screw Slotters

Kent Machine Co., Kent, Ohio.

## Screws

National Acme Company, Cleveland, O.

## Shafts, Flexible

Blax Flexible Shaft Co., 136 Liberty St., N. Y.  
Keller Mech. Eng. Corp., 58A Washington St., Brooklyn, N. Y.  
Mall Tool Co., 3309 S. Chicago Ave., Chgo.  
Sow Flexible Shaft Co., Philadelphia, Pa.  
Stow Manufacturing Co., Binghamton, N. Y.  
Strand Co., N. A., 9001 N. Lincoln St., Chgo.

## Shafts, Steel

American Hollow Boring Co., Erie, Pa.

## Shaping Machines

American Tool Works Co., Cincinnati, O.  
Osborne & Sexton Machy. Co., Columbus, O.  
Rhodes Mfg. Co., Hartford, Conn.  
Smith & Milla Co., Cincinnati  
Springfield Machine Tool Co., Springfield, O.

## Shears, Hand

Armstrong-Blum Mfg. Co., 341 N. Francisco Ave., Chicago  
Dreis & Krump Mfg. Co., 7422 Loomis Blvd., Chicago  
Hendley & Whittemore Co., Beloit, Wis.  
Lewthwaite Machine Co., T. H., 417 E. 31st St., New York  
Tucker, W. W. & C. F., Hartford, Conn.  
Whitney Metal Tool Co., Rockford, Ill.

## Shears, Power

Hendley & Whittemore Co., Beloit, Wis.

## Slotting Machines

Rhodes Mfg. Co., Hartford, Conn.

## Spacing Washers

Detroit Stamping Co., Detroit, Mich.

## Special Tools and Machinery

Sloan & Chace, Inc., Newark, N. J.  
Stecher Co., Chan., 2452 N. Greenview Ave., Chicago  
Wade Tool Co., Waltham, Mass.

## Sprockets

Massachusetts Gear & T. Co., Woburn, Mass.

## Stools and Chairs, Factory

Chicago Wire Chair Co., 619 N. La Salle St., Chicago

## Straightening Machines

Springfield Machine Tool Co., Springfield, O.  
Towley Mfg. Co., John T., Cincinnati  
Whitney Metal Tool Co., Rockford, Ill.

## Tap Extractors

Walton Co., Hartford, Conn.

## Tapping Machines and Attachments

Alto Mfg. Co., 1647 Wolfram St., Chicago  
Avey Drilling Machine Co., Cincinnati  
Burke Machine Tool Co., Conneaut, Ohio  
Eastern Tube & Tool Co., Inc., 580 Johnson Ave., Brooklyn, N. Y.  
Gateman Mfg. Co., Manitowoc, Wis.  
Leland-Gifford Co., Worcester, Mass.  
Sloan & Chace, Inc., Newark, N. J.  
Whitney Metal Tool Co., Rockford, Ill.

## Taps, Threading, Collapsing

Gateman Mfg. Co., Manitowoc, Wis.  
National Acme Company, Cleveland, O.

## Thread Dies

Coiven, J. M., Yonkers, N. Y.

# Classified Finding Index

## Thread Milling Attachments

Cisco Machine Tool Co., Cincinnati, O.

## Threading Machines

Kent Machine Co., Kent, Ohio.

## Threading Tools

Armstrong Bros. Tool Co., 308 N. Francisco  
Av., Chicago

## Tool Holders

Armstrong Bros. Tool Co., 308 N. Francisco  
Av., Chicago  
Western Tool & Mfg. Co., Springfield, O.

## Tool Racks

Chicago Wire Chair Co., 619 N. La Salle St.,  
Chicago

## Tools, Boring

Armstrong Bros. Tool Co., 308 N. Francisco  
Av., Chicago

## Tools, Lathe and Planer

Armstrong Bros. Tool Co., 308 N. Francisco  
Av., Chicago

## Tools, Machinists'

Armstrong Bros. Tool Co., 308 N. Francisco  
Av., Chicago

## Tools, Spot Facing

Genesee Mfg. Co., Rochester, N. Y.

## Trucks, Machine Shop

New Britain Machine Co., New Britain, Conn.  
Towsley Mfg. Co., John T., Cincinnati

## Turntables

Canton Foundry & Machine Co., Canton, O.

## Universal Joints

American Tool Works, Inc., Hartford, Conn.  
Borgeson Mfg. Co., Inc., Torrington, Conn.  
Boston Gear Works Sales Company, Norfolk  
Downs, Mass.

## Used and Rebuilt Machinery

Adams Co., Ogden R., Rochester, N. Y.  
Akron Equipment Co., Akron, O.  
Associated Machine Tool Co., 187 7th St.,  
Brooklyn, N. Y.  
Bath & Co., Cyril J., Cleveland, O.  
Bennett Mch. Co., 50 Church St., New York  
Bertolette Machine Tool Co., Inc., Jersey  
City, N. J.  
Betwink Brothers, New Haven, Conn.  
Brown Machinery Co., St. Louis, Mo.  
Brownell Machinery Co., Providence, R. I.  
Burns Machinery Co., F. W., Racine, Wis.  
Carlson Machinery Co., Davenport, Iowa  
Central-West Machinery Co., Cincinnati, O.  
Cincinnati Automatic Mch. Co., Cincinnati  
Clark Machinery Co., Cleveland, O.  
Clinton Machinery Co., 128 S. Clinton, Chgo.  
Colcord-Wright Mch. Co., St. Louis.  
Donahue Steel Products Co., 204 N. Jefferson  
St., Chicago  
Eastern Machinery Co., Cincinnati, O.  
Empire Machinery Exchange Company, Inc.,  
Cleveland, Ohio  
Easley Machinery Co., E. L., 555 Washington  
Bld., Chicago  
Fallor Co., N. C., 30 Church St., New York  
Fitzsimmons-Coie Mch. Co., Pittsburgh, Pa.  
Foster Machinery Co., Cleveland, O.  
Haerten & Co., J. E., Inc., 50 Church St.,  
New York  
Harris Bros. Co., 25th & Iron, Chicago  
Hill, Clarke & Co., 649 W. Washington  
Bld., Chicago  
Hyman & Sons, Joseph, Philadelphia  
Johnson & Sons Machinery Co., Wm. C.,  
St. Louis, Mo.  
Jones Machine Tool Co., Cincinnati, O.  
Kinsey Co., E. A., Cincinnati, O.

## Used and Rebuilt Machinery—Continued

Klauber Mch. Co., E. L., St. Louis.  
Little Co., W. P., Cleveland  
Lucas & Son, J. L., Inc., Bridgeport, Conn.  
McDonald Machinery Co., St. Louis  
McMullen Mch. Co., Grand Rapids, Mich.  
Manhattan Machinery Exchange, 20 Church  
New York  
Marr-Galbreath Mch. Co., Pittsburgh, Pa.  
Marsh Machine Co., A. E., Cleveland, O.  
Midland Equipment Co., 612 W. Van Buren,  
Chicago  
Mid-West Machine Tool & Supply Company,  
Davenport, Iowa  
Molitor Machy. Co., Chas., 118 S. Clinton St.,  
Chicago  
Morey and Co., Inc., 408 Broome St., N. Y.  
Morris Machine Tool Co., Cincinnati, O.  
Morris Machinery Co., Inc., Newark, N. J.  
Nelson Machinery Co., Green Bay, Wis.  
New Jersey Mch. Exch., Newark, N. J.  
Newman Manufacturing Co., Cincinnati, O.  
Niles Tool Works Co., Hamilton, O.  
Norton-Broadway Mch. Co., Cincinnati, O.  
O'Brien Machinery Co., Philadelphia  
Osborne & Sexton Machy. Co., Columbus, O.  
Oviatt & Co., D. C., Cleveland, O.  
Pattison Supply Co., W. M., Cleveland, O.  
Peninsular Machinery Co., Detroit, Mich.  
Prentiss & Co., Henry, 149 Broadway, N. Y.  
Randle Machinery Co., Cincinnati, O.  
Reeve-Fritts Co., 37 S. Desplaines, Chicago  
Reliance Mch. Sales Co., Pittsburgh, Pa.  
Rentschler & Co., J. P., 6722 N. Maplewood  
Ave., Chicago  
Russell Machine Co., Pittsburgh, Pa.  
Saltzman, R. L., 909 W. Lake St., Chicago  
Schmits & Co., 35 S. Clinton St., Chicago  
Scott-Bansbach Machinery Co., 130 So  
Clinton, Chicago  
Severin-Tripp Machinery Co., 25 Church St.,  
New York  
Simmons Machine Tool Corp., Albany, N. Y.  
Stocker-Rumely-Wachs Co., 117 N. Jefferson  
St., Chicago  
Stoehr Mch. Co., A. M., 560 W. Adams St.,  
Chicago  
Strafer, A. F., 20 Church St., New York  
Strong, Carlisle & Hammond Co., Cleveland  
Sun Machinery Co., Newark, N. J.  
Syracuse Supply Co., Syracuse, N. Y.  
Taylor-Hall Welding Corp., Worcester, Mass.  
Tubor, Velick & Co., Inc., Lake & Desplaines  
Sts., Chicago  
United Mch. & Supply Co., St. Louis.  
Wayne Machinery Co., Ft. Wayne, Ind.  
Wertman, M. A., Cleveland, O.  
White Machy. Co., A. D., 108 N. Jefferson  
St., Chicago  
Wickes Machinery Co., Jersey City, N. J.  
Winterer, Herman L., Philadelphia

## Valve Grinders

Independent Pneumatic Tool Co., 800 W.  
Jackson Blvd., Chicago

## Vises, Drilling Machine

Armstrong-Bium Mfg. Co., 341 N. Francisco  
Av., Chicago  
Armstrong Bros. Tool Co., 308 N. Francisco  
Av., Chicago

## Vises, Machinists'

New Britain Machine Co., New Britain, Conn.  
Western Tool & Mfg. Co., Springfield, O.

## Vises, Milling Machine

Hartford Special Mch. Co., Hartford, Conn.

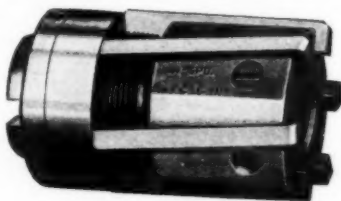
## Wood Working Machinery

Hendley & Whittemore Co., Beloit, Wis.  
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Reamers made with Left Hand Angle Cutting Blades do not dig in, and all chatter is eliminated. This means free, clean cutting, smooth holes, and increased production. The range of expansion is from .100" in the smaller sizes to .150" in the larger sizes. Made with High Speed Steel Blades.

This is a real production reamer. The left hand helical flutes cut fast and clean. Made only in high speed steel. Made with straight and tapered shanks.

**All Sizes Carried in Stock**

*Catalog on Request*

### The Schellenbach-Hunt Tool Co.

118 Opera Place, Cincinnati, Ohio

Agents: E. E. Fletcher, 6007 Euclid Ave., Cleveland, Ohio

## Used and Rebuilt Machinery Section

Lists of Used and Rebuilt Machinery, either For Sale, Wanted or For Exchange, set in uniform style, will be published in this Section at the rate of **50 cents a line**, across the page, each issue, plus **\$2.50** for name and address. Minimum charge, **\$5.00**. No display permitted.

**Write directly to those offering the machines for sale** for prices and full descriptions. If what you seek is not listed, use the blank enclosed to make known your wants to the publisher, who will pass them along to all Machine Tool Blue Book advertisers.

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**The Newman Manufacturing Co., Cincinnati, Ohio**

#### ELECTRIC PORTABLE DRILLS.

30 Electric portable drills for sale at one-quarter actual cost, 220 volts, direct current; all in first-class condition; standard make; various sizes,  $\frac{1}{8}$ " to  $1\frac{1}{2}$ ".

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Gear cutter, No. 3 B. & S. 26" automatic, guaranteed 85% new.....	\$390.
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Turret lathe, flat, 2"x24" J. & L., geared feed, chucking equipment.....	285.

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Bulldozer, U-29, with furnace.....	
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Threading machine, 2-spindle, 1" capacity, National Acme.....	125.

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Air compressor, 12x12 Laidlaw-Dun-Gordon, and 30 h. p., 575 r. p. m., 3-phase electric motor; all for \$500.	
Boring mill, 42" Baush.	
Friction saw, 48" Ryerson.	
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Lathe, 25x12 Bridgeport.	
Lathe, 32x16 Prentiss, l. c. gears.	
Miller, Cincinnati No. 3 univ., O. type.	
Miller, No. 2 Hendey univ., compl.	
Millers, bench, No. 3 Burke; Rock d.	
Press, arch, No. 3A Walsh, 3" str.	
Radial drill, 5" Bickford.	
Shaper, crank, 16" Barker.	

## USED AND REBUILT MACHINERY

### FOR SALE BY

**The Strong, Carlisle & Hammond Co., Cleveland, O., Detroit, Mich.**  
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14"x 6' LeBlond, l. c. g. and chuck.  
14"x 6' Hamilton.  
14"x 6' Bradford, c. r., q. c. g.  
14"x 6' Porter, compound rest and taper attachment, l. c. g.  
16"x 6' South Bend, compound rest, complete.  
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16"x 8' Bradford, c. r., loose change gear.  
18"x 7' Fulton heavy duty friction hd. pl. turning lathe, pan bed, dbl. tool post and countershaft, new.

16"x 8' Monarch, compound rest, standard pattern.  
16"x 8' Lodge & Shipley, old style, compound rest, q. c. g.  
18"x 8' Prentice, compound rest, l. c. g., chuck.  
19"x 8' Porter, 4-step cone, s. b. g., q. c. g. engine lathe complete, new.  
18"x 10' Star, 4-s. c., s. g., with 16" 4-jaw ind. chuck.  
24"x 12' Lodge & Shipley, patent hd., compound rest, q. c. g., arranged for constant speed motor drive.

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No. 4 W. & S. g. f. h. universal turret screw machine.  
2"x 24" Jones & L. g. h. flat turret.  
No. 00 Brown & Sharpe auto., (2).  
No. 0 Brown & Sharpe auto. (2).  
No. 4 Warner & Swasey, p. h., a. c. and b. f.  
No. 2 Warner & Swasey, p. h., a. c. and b. f.  
No. 4 Warner & S., g. f. h., a. c. and b. f.  
No. 3 Foster g. f. h. turret screw mch., with p. f. carriage and turret.  
2 1/2" Cleveland model "A" auto. screw mch., with 5-hole turret.

No. 35 Nat'l Acme 4-spld. auto., (3).  
1 1/2" Cleveland model "A" auto. screw mch., with 5-hole turret.  
19" Libby, factory rebuilt.  
No. 2-G Brown & Sharpe automatics (2).  
No. 2 Brown & Sharpe turret forming (2).  
1"x 7" Millholland, pl. hd., auto. ck., bar fd., hand fd. cross slide and turret, complete, new.  
1"x 7" Millholland turret screw mch., pl. hd. auto. ck., bar feed hand fd. cross slide, with power fd. tur., new.

### DRILLING MACHINES.

3' American sensitive radial with t. a. and elevating table.  
2' arm Gang plain radial with tapping attachment.  
21" Aurora W. & L., square base, stationary head.  
24" W. F. & J. Barnes, sliding head, back geared and power feed.  
2' arm Fosdick & Holloway plain radial, with t. a.  
38" Niles, sliding hd., b. g. and p. f.  
20" Superior W. & L. square base, stationary head.  
14" 3-spindle Henry & W., h. s., b. b.

14" 4-spindle Henry & W., h. s., b. b.  
No. 22 Colburn, sgl. sp., hvy. duty, 1 1/2" cap., with solid spindle and flange for receiving multiple drill heads, new, (2).  
No. 44 Colburn, sgl. sp. heavy duty, 2 1/2" cap., with solid sp. and flange for receiving multiple drill heads, new (2).  
Colburn horizontal duplex drill, 2 1/2" cap. with rotating table, arranged for motor drive, new.  
No. 24 Demco high speed bench drill with C spindle, new.

### MILLING MACHINES.

No. 0 Bickett, hand, bench type (3). Toledo hand milling machines.  
No. 1-B K. & T. "Milwaukee" plain, constant speed drive.  
No. 1 1/2 B. & S., cone dr., universal, complete.  
No. 1 Brown & Sharpe vertical.

No. 4 Brown & S., cone drive univ.  
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No. 1-Y Brown & Sharpe plain.

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No. 6 Cockrane-Bly.

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26" No. 3 Brown & Sharpe auto.  
No. 12 Brown & Sharpe, bevel.

No. 18 Gould & Eberhardt vertical, for spur & spiral.

### CENTERING MACHINES.

Centering machines, single spindle Cadillac, (2).

4" Standard Machinery Company centering machine, new.



## USED AND REBUILT MACHINERY

### The Strong, Carlisle & Hammond Co.—Continued

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- |  |  |
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| 16" American, b. g. c., complete, (2). | 24"x24"x6' Cincinnati planer, 1 head.                    |
| 20" Hendey friction, (3).              | 26" Universal open side tool room shaper, complete, new. |
| 22"x22"x 5' Putnam planers (2).        |  |
| 16" Smith & Mills, back grd. crank.    |  |

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- |  |  |
|--|--|
| No. 1 Brown & Sharpe universal.                            | Type "DE" Hisey-Wolf internal.                                       |
| No. 3 Brown & Sharpe universal.                            | No. 11 Brown & Sharpe pl. grinders.                                  |
| No. 2 Brown & Sharpe surface, (2).                         | Plain emery wh'l stand with column.                                  |
| No. 3 Diamond wet tool grinder with drop apron, new.       | 140. 1 Woods cutter and reamer grinder, complete, new.               |
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| No. 10 Brown & Sharpe plain.                               | No. 2½ Woods cutter and reamer grinder, complete, new.               |
| No. 14—30" B. & S. plain cyl., (2).                        | 20" Whitney wet tool grinders, complete with countershaft, new, (2). |
| No. 6-A Bryant internal.                                   | C3A Grand Rapids duplex drill grinders with wet att., new, (2).      |
| No. 1 LeBlond cutter grinder.                              |  |
| J. B. Point "Yankee" drill grinders, complete, new, (2).   |  |

#### BUTT AND SPOT WELDERS.

- |   |   |
|---|---|
| No. 118 Federal Junior spot welder, 220 volt, 3 phase, 60 cycle, new. | No. 10-A 65 K. W. Federal butt welder, 220 volt, 3 phase, 60 cycle. |
|---|---|

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- No. 2-A Universal horizontal boring machine, 3" bar; very desirable mche.

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| 6x32" Norton plain.     | No. 14 Bealy disc.                    |
| No. 65 Heald cylinder.  | No. 1 Cincinnati univ. tool & cutter. |
| 24" Norton snagging.    | No. 2 Oakley univ. tool & cutter.     |
| 14" Blount wet tool.    | Grand Rapids Yankee twist drill.      |

#### LATHES

- |                                    |   |
|------------------------------------|---|
| 13"x5' Sheppard, geared hd., q. c. | 14"x6' Hendey, geared head, q. c., taper attach., draw in attach.   |
| 13"x5' Carroll-Jamieson.           | 14"x6' Hendey, yoke head, q. c., relieving attach., draw-in attach. |
| 15"x6' Rockford semi, q. c.        | 3½x60 Lo-Swing.   |
| 15"x6' South Bend, semi q. c.      |   |
| 16"x6' Lodge & Shipley.            |   |

#### DRILL PRESSES.

- |                                     |  |
|-------------------------------------|--|
| 20" Silver, b. g.                   | 25" Snyder, sliding head, with tapping attachment. |
| 21" Canedy-Otto, b. g., power feed. | 30" G. & E. sliding head.                          |
| 36" New Haven, sliding head.        |  |
| ¾" Sipp, ball bearing, 8" overhang. |  |

#### MILLERS

- |                        |                                     |
|------------------------|-------------------------------------|
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| No. 1 Rockford plain.  | No. 2B Brown & Sharpe pl., s. p. d. |
| No. 1½ Rockford plain. | No. 34 Ohio plain, dividing head.   |

#### TURRET LATHES.

- |                              |  |
|------------------------------|--|
| No. 4 Warner & Swasey plain. | No. 6 W. & S., p. f. to car. & turret. |
| No. 4 Warner & Swasey univ.  | 24x26 Greenlee.                        |

#### SHAPERS AND PLANERS.

- |                    |                            |
|--------------------|----------------------------|
| 16" Smith & Mills. | 24x24x8 Powell.            |
| 20" Smith & Mills. | 24x24x8 Cincinnati.        |
| 20" Cincinnati.    | 30x30x7 Fitchburg, 1 head. |

#### MISCELLANEOUS

- |                                    |                                  |
|------------------------------------|----------------------------------|
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| Brake, 72" Peck, Stow & Wilcox.    | Press, No. 29 Swaine, o. b. i.   |
| Gear hobber, No. 12 Barber-Colman. | Press, No. 4 Toledo, o. b. i.    |
| Gear hobber, 24" Schuchardt & S.   | Press, No. 5 Toledo, o. b. i.    |
| Gear hobber, 72x20" Cincinnati.    | Saw, No. 2 Marvel.               |

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### FOR SALE BY

**Mid-West Machine Tool & Supply Co.,**

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Automatic, 1<sup>1</sup>/<sub>2</sub>"-14" Cleveland.  
Automatics, full, No. 2, No. 0 and  
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Drill, 1-S Garvin duplex.  
Drills, 4-spdl., 12" and 14" L. & G.  
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Hobbers, Nos. 3 & 12 B. & C.

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Miller, No. 13-B B. & S., production.  
Miller, No. 4 Cinti. s. p. d., late type.  
Planer, 36" Cleveland open side.  
Planer, D. & H., 10' between hous-  
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Planer, 60" Pond.  
Radial, 4' American sensitive.  
Radial, 4' Mueller.  
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18-C Bliss.  
No. 19 Bliss.  
Swaine geared, (2).

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20" b. g., p. f., new, \$130.  
20" drill presses (40), each \$40.  
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Bench type drills.

30" Bickford radial.  
3' American radial.  
4' Ryerson radial.

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A number of hand millers.

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16"x 6' Hamilton, q. c., (2).  
16"x 6' Sidney, q. c., (2).  
16"x 8' Monarch, q. c.  
17"x 9' Chard, q. c., (9).  
18"x 6' Lehmann, q. c., (2).  
24"x 10' Canadian, q. c., d. b. g., (3).

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Emery grinders, \$2 and up.

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Boring mills, Andrew, (3).  
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Saw tenoners, Pettingell.

Shapers, double spindle, Whitney  
and Fay.  
Swing saws, Porter, (4).  
Saw table and jointer combined,  
portable.

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Hack saws.  
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Herman L. Winterer,

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43"x17' 4" Bement-Miles.  
37"x14' Johnson d. b. g., q. c. f., t. a.  
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26"x10' 6" Walcott, q. c., d. b. g.  
28"x10' Niles, q. c. g.  
24"x14' Porter.  
21"x8' LeBlond.

20"x8' 6" Walcott, d. b. g., c. g.  
19"x10' Draper, patent head.  
18" x 7' Chard, d. b. g., semi q. c. g.  
18"x6' to 8' lathes, (6).  
16"x10' Whitcomb-B., semi q. c.  
16"x 6' American, q. c., pan bed, t. a.  
15"x 8' Sidney, q. c., d. b. g., t. a.  
14"x 6' Springfield, latest type, tool room type, t. a.

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3"x28" Pond, triangle.  
3"x36" Pratt & Whitney, hollow hex.  
20"x7' Bridgeport, 2", h. s.  
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No. 3 Foster ac. machines 1-5/16" wire feed, (2).  
1"x9" Cincinnati-Acme, wire fd., (2).  
No. 4 B. & S., bar feed, all auto. fds.  
No. 2 Smurr & Kamen, wire fd., (5).

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42" Gang radial, s. p. speed box.  
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36" Rockford, tapping attachment.  
26" Aurora, sliding head.  
34" Barnes, s. h., grd. fd., comp. tbl.

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21" Aurora, b. g., p. f.  
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No. 1 Van Norman hand miller.

No. 2 Rockford univ., heavy patt.  
No. 3 Becker-Brainard, new model, q. c. g., vertical attachment.  
No. 5-C Becker vert., rotary table.  
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48"x37"x9' Sellers, 2 heads.  
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42"x36"x12' Cincinnati, 4 heads.  
42"x36"x14' Cincinnati, 4 heads.  
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25" Woodward & P., crk., gear box.  
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16" Potter & Johnston crank shaper.  
15" Lodge & Davis shaper.  
15" Potter & Johnston shaper.

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24" Bullard, rapid production.  
Boring mill, car wheel, 60" Newton.  
Boring, drilling and milling machine, 17' Bement Miles horiz.

42" Bullard, 2 swivel heads, (3).  
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48" Bullard, 2 swivel heads.

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14" National, bolt, m. d.

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## MISCELLANEOUS.

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Filing machine, Oliver on column.  
Grinder, 13"x35' Landis universal.  
Grinder, disc, No. 17 Bealy.  
Grinder, No. 1 Cinti tool & cutter.  
Grinder, disc, No. 6 Gardner 26".  
Grinders, several dbl. end electric.  
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Hammer, 60 lb. Hotchkiss.  
Hammer, 50 lb. Little Giant, belt dr.  
Hammers, 60 lb. Bellefonte upright; 2.  
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Keyseater, No. 4 Catlin, m. d.  
Punch presses, all sizes, (55).  
Punch or gate shears, 72" Cleveland multiple, 15" throat.

Punch, No. 2 H. & J., 15" th., arch. jaw, 14" in 1".  
Punch, horiz., L. V., grd., cap. 1".  
Punch & shear, No. 2 H. & J., dbl. end, 20" th. cap., 14" in 1".  
Punch & shear, No. 4 Long & A., double end, 24" throats.  
Punch & shear, Oeking combination, cast steel frame, cap. 14" in 13/16".  
Riveter, air, 6" gap Allen, cap. 14".  
Riveter, air, 6" Allen, cap. 14".  
Riveter, stake, No. 6 Whiting, 60" th.  
Shr., No. 239 Niagara pwr. sq. m. d.  
Shear, squaring, 45" Ohl, 4" cap.  
Slotter, 14" Niles.  
Slotter, 34" Rhodes vertical.  
Tooth rounding machine, S. & S.  
Wire straightener, No. 1 Shuster.

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Drill, 4-spindle Barr ½" cap.  
Engraving machine, No. 1-A and D Gorton.  
Lathe, No. 2 Stark precision.  
Lathe, No. 3 Cataract with turret.  
Lathe, 9"x12" Sundstrand prod.  
Lathe, 9"x14" Porter-Cable prod.  
Lathe, 14"x8" Hendey, q. c. g.  
Miller, No. 1 Bickett horizontal.  
Miller, No. 1 Bickett vertical.

Miller, No. 3 Oesterlein plain.  
Pipe machine, 12" Forbes.  
Press, No. 3 Rockford, o. b. i.  
Press, No. 3 R. & K., o. b. i.  
Press, No. 3-A R. & K., o. b. i.  
Routing mch., 12" Leland, high spd.  
Screw mche., No. 3 Foster, fric. hd.  
Shear, Lennox throatless, bench type.  
Shaving machine, P. & W., upright, comp. table.  
Screw slotter, No. 1 Garvin.  
Turret lathe, 24" Steinle grd. hd.

### FOR SALE BY

**Brownell Machinery Co., 150 Pine St., Providence, R. I.**

#### DRILLS.

5' Prentice Bros. radial.  
4' Prentice Bros. radial.  
2-spindle Leland, b. b.

25" Weigel, sliding head.  
23" Snyder, stationary head.  
16" Taylor & Fenn sensitive.

#### GEAR CUTTERS

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No. 3 B. & S. 26x8, spur.

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No. 11 B. & S. plain 4x30.  
No. 1 Norton tool and cutter.  
No. 2 B. & S. cutter and reamer.

No. 1 B. & S. automatic surface.  
20" Blount wet tool.  
20" Diamond standard emery wheel.

#### LATHES.

9" Brown & Sharpe universal hand.  
B. & S. polishing & finishing.  
11"x4" South Bend screw cutting.

14"-19" Carroll patented gap 10'.  
20"x8" Roulsted.  
20"x10" Monarch, q. c. g.

#### MILLING MACHINES.

5-B Brown & Sharpe plain, 68" table feed.  
No. 42 Oesterlein pl., 42" table feed.  
No. 2-B heavy B. & S., constant sp.

No. 2 heavy B. & S., cone drive.  
No. 2 Brown & Sharpe vertical.  
18" Cincinnati, b. g. plain.  
No. 6 Whitney hand miller.

#### PLANERS AND SHAPERS

17"x17"x4' Whitcomb.  
17"x20"x4' Whitcomb-Blaisdell.  
36"x36"x12' Gray, spur gear.  
7" Rhodes shaper.

15" Potter & Johnston.  
15" Springfield.  
16" Ohio plain.

#### ROLLING MILLS.

4x6 McWilliams.  
5x8 Standard.

6x10 Standard.  
12x20 plain.

#### SCREW MACHINES.

No. 0 B. & S. wire feed, hand.  
No. 2-F B. & S. hand, constant speed.

No. 4 B. & S. plain, wire feed.  
No. 6 B. & S., g. f. h.

#### MAGNETIC CHUCKS.

8x10 Taft-Pierce rectangular magnetic chucks, 110 v., d. c., suitable for No. 2 surface grinders; new very low price.

#### MISCELLANEOUS.

Band saw, Atlantic Iron Works 36", tilting top.  
Band saw, 12" H. & R. metal cutting.  
Broaching machine, No. 2 Lapointe (Hudson).  
Filing machine, Thurston.  
Hack saw, 13"x16" Peerless high speed.  
Hammer, 500 lbs. Miner & Peck, drop.  
Hammer, 300 lbs. Beaudry Champion power.  
Planer, No. 244 Fay & Egan, surface 550 v., 60-cycle, 3-phase motor.  
Ripsaw, No. 388 Fay & Egan, box shook.  
Shaft straightener, Rockford 14"x10'.  
Slotter, 12" Bement-Miles.  
Swaging machine, No. 2 Langelier.

# USED AND REBUILT MACHINERY

## FOR SALE BY

Marr-Galbreath Machinery Co.,

58 Water St., Pittsburgh, Pa.

Air compressors, Curtis, 6"x6", 80 cu. ft.....	\$ 150.
Air compressors, Curtis 7"x7", base for motor.....	375.
Armature banding lathe, 25"x8".....	100.
Bolt cutter, 2" Landis, single head, dies.....	450.
Bolt cutter, 1 1/2" Morgan, double head, dies.....	350.
Bolt cutter, 1 1/2" Acme, triple head.....	450.
Bolt cutter, 1" Acme "B" single, dies, near new.....	225.
Beam punch, single, capacity 2 holes 1"x1", 13" throat.....	600.
Boring mill, 42" Bullard, 2 heads, belt.....	700.
Boring mill, 16" to 36" Niles, extension head motor, 220 volts, d. c.....	25,000.
Bulldozer, No. 28 W.-W., for motor drive, new.....	
Drill grinder, "W.F.E.L." Wilmarth-Morman, mtr. 3-ph., 60 cy., 220 v.....	200.
Engraving machine No. 1-A Gorton, near new.....	350.
Forging machine, 3" Acme, steel bed, for motor.....	3800.
Gear cutter, No. 6 Brown & Sharpe, 72"x13".....	3000.
Gear hobber, No. 4 Farwell, with change gears.....	1200.
Grinder, No. 18-D Rowbottom, double opposed head, b. b.....	500.
Grinder, No. 60 Heald, 19" arm, fixture attached.....	500.
Hack saw, No. 5 Marvel, with automatic feed for motor drive.....	250.
Hack saw, 9" Acme, for gear motor drive.....	175.
Hack saw, 12"x15" Racine, gear box for motor.....	300.
Hammer, 2000 lb. Erie, single leg, (A-1).....	1500.
Hammers, 40 lb. and 80 lb. Bradley horizontal helve, each.....	550.
Keyseater, No. 6 Mitts & Merrill, 31" stroke.....	900.
Keyway cutter, 24" Morton, capacity 2 1/2" wide.....	500.
Lathe, 48"x30" Pittsburgh, triple geared.....	900.
Lathe, 36"x20" Niles-Bement-Pond, for motor drive.....	1250.
Lathe, 24"x14" Porter, plain change.....	500.
Lathe, 24"x10" Putnam, 18" chuck, taper attachment.....	400.
Lathe, 20"x10" Rahn-Laumon, q. c. g., t. a.....	650.
Milling machine, No. 3-B Milwaukee, single arm.....	1100.
Milling machine, No. 0 1/2 Cincinnati plain.....	300.
Milling machine, No. 0 Kempsmith universal.....	400.
Milling machine, vertical, No. 4-B Becker.....	650.
Milling machine, vertical, No. C Becker, single spindle drive.....	1200.
Milling machine, duplex Knight, table 8 1/2"x32".....	575.
Pipe machine, 10" E. C. & B., fair condition.....	600.
Pipe machines, 8" Oster, with dies, near new.....	800.
Pipe machine, 6" Oster, with dies.....	450.
Planer, 60"x60"x20" Cincinnati, 3 heads, g. b. m. d.....	4000.
Planer, 42"x42"x16" Cleveland openside, 3 heads, for motor drive.....	3500.
Planer, 36"x36"x10" Cincinnati, 2 heads, belt or motor.....	750.
Planer, 36"x36"x24" Pond, 4 heads.....	2500.
Press, No. 59 Toledo, geared, 5" stroke, for motor.....	3000.
Press, No. 11 Perkins, bed 24"x30", 4" stroke, plain.....	1000.
Punch and shear, Cleveland "EF" single, 36" thr., 1 1/2"x1" architectural jaw, for motor drive, double gag punch attachment.....	1200.
Punch and shear, No. 2 Hilles & Jones, 20" throat, 1"x1" plain jaw.....	600.
Punch and shear, No. 3 L. & A., 8" throat, 1"x1" plain jaw, single.....	500.
Punch and shear, No. 6 L. & A., 5" throat, d. e., 1"x1" plain jaw.....	450.
Punch and shear, No. 51 Beloit combined, 1"x8".....	175.
Punch, coping, steel plate, 13" thr., 36" die space, 2 holes 1"x1", for m. d.....	600.
Radial drill, 2 1/2" Foadick, tapping attachment.....	300.
Radial drill, 3" Dreses-Mueller.....	300.
Radial drill, 3" Prentice, g. b., t. a.....	400.
Radial drill, 4" Prentice, g. b., t. a.....	500.
Radial drill, 4" Dreses (Simplex).....	275.
Rivet header, 1" Ajax, continuous hand feed.....	775.
Shaper, 24"-26" Stockbridge b. g. crank, power down feed.....	850.
Shaper, 15" Potter & Johnston, universal crank, belt or motor drive.....	500.
Shear, squaring, 60" Bertsch, 18" gap, cap. 16 ga., power.....	450.
Shear, squaring, 53" Robinson, 18 ga., hold down, power.....	300.
Shear, squaring, 36" Niagara 14 ga. hold down, power.....	150.
Turret lathe, 13" Gisholt, 2 1/2" hollow spindle.....	500.

## USED AND REBUILT MACHINERY

### FOR SALE BY

#### E. L. Klauber Machinery Co.,

320 South Third St., St. Louis, Mo.

Drill, Gardam multiple, 10 spindle.  
Drill, 34" Barnes, b. g., s. h., tap. att.  
Drill, 24" Barnes, b. g., s. h.  
Drill, Taylor & Fenn, 2 spindle.  
Drill head, 4-spindle, adjustable.  
Grinder, Bryant No. 18, chucking.  
Grinder, Besly No. 10 disc.  
Grinder, B. & S. No. 3 cutter.  
Grinder, B. & S. No. 11, plain cyl.  
Lathe, 14"x6" Bradford.  
Lathe, 14"x6" Reed-Prentice.  
Lathe, 16"x5" Hendey, tie bar.  
Lathe, 16"x8" South Bend.  
Lathe, 16"x8" Monarch, q. c. g., d. b. g.  
Lathe, 16"x8" Lodge-Shipley, q. c. g., d. b. g.  
Lathe, 20"x8" Bradford.

Lathe, 21"x8" LeBlond, q. c. g., d. b. g.  
Lathe, 22"x14" Bradford, d. b. g., q. c. g.  
Lathe, 24"x10" Lodge & S., q. c. g.  
Lathe, 26"x10" C.M.C., d. b. g., q. c. g.  
Miller, No. 2 Cincinnati plain.  
Miller, No. 23 Fox.  
Miller, No. 3 Burke.  
Miller, No. 0 Burke, bench.  
Planer, American 30"x30"x8".  
Punch press, Toledo No. 1, o. b. i.  
Punch press, Toledo No. 2, o. b. i.  
Screw machine, Greenfield, 1".  
Screw machine, No. 3 Garvin.  
Threading machines, with Landis heads, 1/2" cap.; complete unit for manufacture of nipples.  
Turret lathe, Warner & S. No. 2.

### FOR SALE BY

#### Reliance Machinery Sales Company

1405 Brighton Road,

N. S. Pittsburgh, Pa.

Automatics, Nos. 52, 53 & 55 Acme.  
Blower, No. 5 Champion, 64" outlet.  
Blower, Amer. pressure, 461 cu. ft.  
Bolt cutter, 1/2" Acme class "A," 2-sp.  
Boring mill, No. 44 D. & H., floor type, 24" bar.  
Boring mill, Niles horiz., 4 1/2" bar.  
Boring mill, 24" Bullard rapid pro.  
Boring mill, 34" Colburn, 1 head.  
Boring mill, 51" Niles, 2 heads.  
Boring mill, 62" Bullard, 2 heads.  
Brake, 48" Keane, capacity 1/2".  
Brake, 72" Dreis & Krump, cap. 16 ga.  
Broaches, Nos. 3 & 4 LaPointe.  
Buffers, 10 h. p. 220-3-60, 3600 r.p.m.  
Bulldozers, No. 4 Williams & W.  
Drills, 22" Barnes, sliding head, (3).  
Drills, 36" Snyder, sliding head.  
Drill, Model "F" Turner auto. tur.  
Gear cutter, 36"x10" G. & E., s. p. d.  
Grinder, Oliver drill, 1/2" cap., m. d.  
Grinder, WPL New Yankee, cap. 2 1/2".  
Grinders, Nos. 11 & 12 B. & S. pl.  
Grinder, 10"x30" Landis plain.  
Grinder, 12"x24" Modern plain.  
Grinder, No. 16 Besly, double disc.  
Grinder, 2 1/2 h. p., 220 d. c., cap. 24x4".  
Hammer, 2-A High Speed, m. d.  
Hammer, 80 lb. Bradley cushioned helve.  
Hammers, 300 lb. Bradley upright helve, (2).  
Hammer, No. 4-I Nazel forging.  
Keyseater, No. 2 Baker, belt drive.  
Lathe, 12"x 6" Seneca Falls.  
Lathe, 12"x10" Davis tool rm., q. c. g.  
Lathe, 14"—28" Fay & Scott gap.  
Lathe, 14"x 6" Hendey, g. h., m. d.  
Lathe, 14"x 6" Seneca Falls, q. c. g.

Lathe, 16"x 8" Hamilton, q. c. g.  
Lathe, 16"x 8" Hendey, g. h., m. d.  
Lathe, 18"x 8" American, g. h., m. d.  
Lathe, 18"x8" L. & S., q. c. g., m. d.  
Lathe, 18x10 Whitcomb-B., g. h., s. p. d.  
Lathe, 20"x10" Hendey, g. h., m. d.  
Lathe, 20"x10" Prentice, g. h., s. p. d.  
Lathe, 20"x12" S. & B., q. c. g., cone dr.  
Lathe, 24"x10" Reed, b. g., p. c. g.  
Lathe, 34"x12" LeBlond, triple grd.  
Lathe, 18" Libby, 3/4" sp., belt or m. d.  
Miller, No. 1 Knight drilling.  
Miller, No. 1 1/2 American plain.  
Miller, No. 3 Becker universal, full equipment.  
Miller, model "C" Becker, vert.  
Motor, 5 h. p. Wagner, 220-1-60.  
Pipe machine, 1/2" to 2" Williams.  
Pipe machine, 8" Cox, cap. 2 1/2" to 8".  
Pipe machine, Merrill, 2 1/2" to 12".  
Presses, Nos. 4 & 6 Toledo, o. b. i., grd.  
Press, No. 4 Bliss, Stiles, type.  
Press, 30-ton Lucas forcing.  
Press, Ferracute DD2, o. b. i., cam.  
Press, No. 10 Bliss reducing, 4" str.  
Press, No. 54 Toledo trimming.  
Punch, Royersford d. e., cap. 1"x4", arch. jaw, 18" throat.  
Punch, Wickes, 48" thrt., cap. 1 1/2"x1".  
Radial drills, 4" & 5" Prentice plain.  
Radial drill, 5" American plain, t. a.  
Reduction gear, Foote, 56 to 1.  
Rolls, Beloit initial type, 4 1/2"x50".  
Saws, No. 5 Marvel high spd., 5x6, (3).  
Saw, American metal swing, m. d.  
Shaper, 20" Steptoe, b. g. crank.  
Shaper, 24" Cincinnati, b. g. crank.  
Tapper, 1/2" Webster & Perks, 1-spdl.  
Tapper, 1 1/2" Webster & Perks, 2-spdl.

Our warehouse is full of bargains. What have you for sale?

## USED AND REBUILT MACHINERY

### WANTED BY

South Bend Lathe Works, . . . . . South Bend, Ind.

#### GUN BARREL DRILLING MACHINE.

We are in the market for a good used No. 1½ Pratt & Whitney gun barrel drilling machine. Give full particulars, condition and price.

### FOR SALE BY

A. F. Strafer, . . . . . 30 Church St., New York City

#### BORING MILLS, VERTICAL.

10'—16' Niles extension type, b. d.  
16'—36' Niles extension type.  
90" Niles, friction feed, b. d.  
100" Betts, heavy duty.

84" Bickford, belt drive.  
72" Cincinnati rapid production.  
53" Niles-B.-P., rapid traverse.  
60" Bullard, belt drive.

#### BORING MILLS, HORIZONTAL.

5" bar, Niles floor type.  
6" bar, Bement Miles, floor type.  
4" bar, N. B. P. tbl. type, dup. contr.

5" bar Deitrich & Harvey, floortype.  
4½" bar Niles, floor type.  
3" bar, universal table type, s. p. d.

#### DRILL PRESSES.

7' Baush tapping attachment.  
5' Western radial, s. p. d.  
4½' Dreses radial, m. d.

3½' Cincinnati radial, m. d.  
310 Baker, heavy duty.  
28" Kern, upright, s. h. & b. g.

#### GRINDERS.

18"x96" Norton pl., arr. for motor dr.  
10"x72" Norton plain, overhead, belt drive, complete equip.

6"x32" Norton plain.  
No. 1 Landis universal, belt drive.  
84" Diamond surface.

#### HAMMERS.

600 lb. Erie steam hammer.  
500 lb. Chambersburg, steam.

No. 4 Nazel, type I motor drive.  
No. 4-B Nazel hammer, motor drive.

#### TURRET LATHES.

Gisholt 24" modern, motor drive.  
Jones & Lamson, 3½"x36" bar equip.  
Greenlee 24"x26", chuck equip.

Steinle 24", new.  
Bardons & O., No. 4, wire feed.  
No. 2A Warner & Swasey, comb.

#### ENGINE LATHES.

72"x74" Niles-Bement-Pond, grd. hd.  
42"x38" Bridgeford, geared head.  
52"x24" Putnam, triple grd., belt dr.  
36"x16" N.-B.-P., new, triple geared.  
36"x16" N.-B.-P., triple geared, m. d.

36"x30" L. and S., selective head.  
36"x16" L. and S., motor drive.  
24"x12" Prentice, geared head.  
30"x16" N.-B.-P., q. c., m. d.

#### MILLING MACHINES.

No. 3 Hendey, plain, cone type.  
No. 3-B Brown & S. hvy. plain.  
No. 4 Cincinnati plain, high power.

No. 2-B Brown & Sharpe, heavy.  
No. 8 Becker duplex, s. p. d.  
Mfg. type, B. & S. heavy No. 13.

#### PLANERS.

120"x120"x25' Niles, motor drive.  
84"x84"x30' Sellers, motor drive.  
72"x72"x30' Sellers, belt drive.  
60"x48"x14" Cincinnati, gr. box, m. d.  
48"x48"x16" N. B. P. rev. motor dr.  
52"x36"x22" N. B. P. rev. motor dr.

42"x42"x30' new Niles-Bement-Pond reverse motor drive.  
42"x42"x26" N. B. P. rev. motor dr.  
36"x36"x30" N. B. P. rev. motor dr.  
36"x36"x16" new Niles-Bement-Pond reverse motor drive.

#### PUNCHES AND SHEARS.

No. 3 Hilles & Jones dbl. 36" t., b. d.  
No. 17 Williams & White, 34" tht.  
No. 6 Hilles & Jones, 72" thrt., m. d.  
No. 5 Hilles & Jones, 48" t., m. d.

Gate shear, H. & J. 1" cap., 73" blades.  
No. 4 H. & J., dbl., 48" thr., m. d.  
Angle shear, H. & J., 6"x1" cap.  
Rotary, Gray No. 1—3/16" cap.

#### ROLLS.

18' Bertsch, pinch type, ¼" cap.  
20" Hilles & Jones, ¼" cap. m. d.

Newbold straightening 72" and 66".  
16" Southwork, ½" capacity.

#### MISCELLANEOUS.

Bulldozer, W. & W. No. 4.  
Cold saw, 60" Newton, m. d.  
Cold saw, 50" Espen Lucas, m. d.  
Core wire straightener, ½" to 5/16".  
Hydraulic forging press, 1200 tons.

Plate planer, 25' H. & J. No. 6.  
Riveter, Allen, 48" throat, 24" gap.  
Tapping attachment, 1" Errington.  
Welding torches and generators.  
Wheel press, 200-ton Cardwell.

## USED AND REBUILT MACHINERY

### FOR SALE BY

#### Bennett Machinery Co.,

Boring mill, 51" Bridgeport, grd. f.  
Friction saw, No. 3 Ryerson, d. c.  
Gap lathe, 18"/36"x8" Fay & Scott.  
Lathe, 40"x12" Putnam, triple grd.  
Lathe, 30"x15" Reed, 11" centers.

#### 30 Church St., New York City

Lathe, 24"x10" LeBlond, quick chg.  
Miller, No. 2 Milwaukee, \$350.  
Punch and shear, No. 2 L. & A.  
double end, 24", 1" thru 1", \$1000.  
Radial, 6" Pond.

### FOR SALE BY

#### Colcord-Wright Machinery & Supply Co.

#### 1223-29 North Broadway,

#### St. Louis, Mo.

Automatic, No. 00 Brown & Sharpe.  
Automatic, No. 0 Brown & Sharpe.  
Furnace, Stewart triple purpose.  
Grinder, Oakley universal, (2).  
Grinder, No. 2 American surface.  
Grinder, Gisholt internal.  
Grinder, No. 1 B. & S. universal.  
Lathe, 13"x5" Willard, t. a.  
Lathe, 14"x6" Star, motor drive.  
Lathe, 14"x6" Monarch, q. c.  
Lathe, 15"x8" Mueller, q. c.  
Miller, No. 1 Rockford plain.  
Miller, No. 1 Knight vertical.  
Miller, No. 3A B. & S. univ., mtr. dr.

Miller, No. 3 Burr keyseat.  
Planer, 24"x24"x6" Ohio.  
Pipe machine, 12" Curtis.  
Power press, P4 Ferracute.  
Power press, No. 91C Toledo.  
Saw, 6" Peerless univ., motor drive.  
Screw machine, No. 1 W. & S.  
Screw machine, No. 2 Garvin.  
Screw machine, No. 3 Woods T. T.  
Sensitive drill, 4-spindle Mason.  
Tapper, No. 2 Garvin automatic.  
Turret lathe, 3x36 J. & L.  
Turret lathe, No. 4 Bardons & O.,  
friction back grd., chasing attach.

### FOR SALE BY

#### Henry Prentiss & Co., 439 Communipaw Ave., Jersey City, N. J.

Bolt cutter, 2" Acme, double head.  
Bolt header, 24" Acme.  
Boring mill, 24" Bullard, New Era.  
Boring mill, 42" Bullard, power rapid traverse.  
Boring mill, 102" Poole.  
Broaches, Nos. 1, 2, 3 & 4 Lapointe.  
Drill, sgl. spdl. H. & W., b. b. sens.  
Drills, 24" & 32" Cincinnati.  
Drill, No. 25 Foote-Burt high speed, ball bearing.  
Drill, 3" American plain, s. p., g. b.  
Drill, 3" Morris radial, s. p., g. b.  
Drill, 4" American triple purpose rad.  
Drill, 5" Drees radial, s. p., b. b.  
Drill, 6" Cincinnati-Bickford plain radial, s. p., g. b.  
Drill, 11" Lynd-Farquhar (wall).  
Drill, No. 30 Natco multi spindle.  
Drill, No. 13 Natco multi spindle.  
Drill, 26" Barnes all-grd., 4-spindle.  
Gear cutter, 6" Gleason generator.  
Gear cutter, 36" Gould & Eberhardt, spur & bevel.  
Grinders, 3"-6"-10" Norton plain.  
Grinder, 12" Cincinnati universal.  
Grinder, No. 2 Norton cutter & tool.  
Grinder, No. 69 Heald cylinder.  
Grinder, No. 65 Heald cylinder.  
Grinder, 14" Pratt & W. surface, b. b.  
Grinder, No. 6 Besly disc.

Lathe, 14"x10" L. & S., s. p. or m. d.  
Lathe, 16"x6" American, s. p. or m. d.  
Lathe, 17"x16" LeBlond.  
Lathe, 16"x8" LeBlond.  
Lathe, 20"x12" American, s. p. or m. d.  
Lathe, 24"x10" American.  
Lathe, 24"x10" Lodge & Shipley.  
Lathe, 30"x12" L. & S. s. p. or m. d.  
Lathe, 36"x24" Putnam, geared head, s. p. d., late type.  
Lathe, 38"x20" Schumacher-Boye.  
Lathe, 36"-44"x16" McCabe, dbl. sp.  
Lathe, 24"x6 & 8" Ohio.  
Planer, 30"x10" Fletcher.  
Planer, 36"x10" Woodward & P.  
Planer, 48"x12" Powell.  
Planer, 60"x44"x12" Pond.  
Planer, 72"x54"x20" Pond.  
Press, No. 24 Billings & Spencer trimming, slide cutting attach.  
Presses, Nos. 3 & 5 V. & O. incl.  
Press, No. 66 V. & O., s. s.  
Press, No. P. G. 2 Ferracute.  
Screw machines, auto. 4", 34", 43" Gridley.  
Screw machines, auto. 4", 8", 14", 24", 44", 6" Cleveland.  
Shapers, 16", 20" & 24" Cincinnati.  
Shaper, 20" American.  
Turret machines, 14", 24", 34" Acme.  
Turret machines, 24" & 34" J. & L.

Partial list only. Inquiries addressed to

439 Communipaw Ave., Jersey City, N. J. will receive prompt attention.



# USED AND REBUILT MACHINERY

## FOR SALE BY

**Schmitz & Co.,**

Grinder, No. 10 Brown & Sharpe.  
Hack saws, pwr., Nos. 1 & 2 Marvel;  
No. 3 Robertson.  
Mortiser, hollow chisel Greenlee.  
Miller, No. 2 Cincinnati, plain.

**35 S. Clinton St., Chicago, Ill.**

Lathes, 24"x12" L. & S., qk. ch. gr.;  
22"x20" American.  
Pipe machine, 4" portable, Forbes.  
Punch press, Farrell, 8" stroke,  
weight about 5000 lbs.

## FOR SALE BY

**Chas. Molitor Machinery Co., 118-124 S. Clinton St., Chicago, Ill.**

### LATHES.

21"x10" LeBlond, q. c. g., t. a.  
18"x 9" Hamilton, q. c. g., taper, draw.  
18"x 8" Boye & Emmes, q. c. g.,  
taper, draw, collet attachment.  
16"x 9" Chard, q. c. g., taper, draw.  
16"x 8" LeBlond, q. c. g., ta., draw. (2).  
18"x 8" Sidney, quick change grs.  
18"x 8" Morris, q. c. g., dbl. g., (2).  
18"x8" American, q. c. g., taper, re-  
lieving attachment.

18"x8" Bradford, q. c. g., draw, collets.  
16"x8" Hendey, q. c. g., taper.  
16"x6" Seneca Falls, q. c. g., (2).  
16"x 8" Pratt & Whitney, taper.  
16"x 8" Cincinnati q. c. g.  
15"x 6" Carroll-Jamieson.  
14"x6" Bradford, q. c. g., draw, collets.  
14"x6" LeBlond, quick change gear.  
14"x6" Rockford, taper q. c. g.  
14"x 6" Hendey, draw att.

### MILLERS.

No. 2 Brown & Sharpe universal.  
No. 2 Rockford univ., vert. attach.  
No. 4 Ohio rapid production.  
No. 2A Kearney & Trecker, sgl. pul.  
No. 3 Kempsmith plain.  
No. 4 Cincinnati vertical.

Model B Becker vertical.  
No. 3 Becker vertical.  
24" Bullard rapid production.  
30" Bullard, 32" Colburn.  
No. 5 C Becker, vertical incl. rot.  
table.

### SHAPERS.

24" Gould & Eberhardt, grd. crank.  
24" Hamilton heavy, grd. crank.  
24" Steptoe, geared crank.  
24" Rockford, geared crank.

20" Ohio, geared crank.  
16" Smith & Mills, geared crank.  
16" Gould & Eberhardt, grd. crank.  
14" Springfield crank.

### RADIALS AND DRILL PRESSES.

5" Bickford.  
36" American.  
26" Superior, sliding head, b. g.  
24" Becker Bros., (3).  
6-spindle Sipp, 7" capacity.

5-spindle Henry & Wright, 2" Morse  
taper.  
2-spindle Henry & Wright, 1" cap.  
3-spindle Leland Gifford bench.  
1-spindle Sipp with comp. table, (2).

### GRINDERS.

Bryant internal and chucking, (4).  
No. 3 Wilmarth & Morman, mag.  
chuck.  
No. 2 Norton universal.  
No. 3 Oakley universal.  
Cincinnati univ., 4"x57" table.  
No. 1 LeBlond universal.  
No. 2 Brown & Sharpe univ.  
No. 2 LaSalle universal.

12"x72" Brown & Sharpe univ.  
8"x32" Norton cylindrical.  
6"x18" Landis self-contained.  
10"x30" Landis cylindrical No. 14.  
No. 65 Heald cylinder.  
40" Besly ball bearing.  
No. 4 Gardner ball bearing.  
No. 120 Gardner ball bearing.

### SCREW MACHINES AND TURRET LATHES.

Jones & Lamson, single spindle.  
1" and 1 1/2" Gridley 4-spindle.  
Nos. 2 & 4 Warner & S. pl. & g.  
No. 0 G. Brown & Sharpe, auto.  
No. 6 Warner & Swasey, b. g., fr. hd.

No. 6 Foster, power long. & cross.  
1" & 1 1/2" cap. Acme, b. g., frict. h.  
Nos. 0, 1, 2, 3 Foster and B. & O.  
16"-18" Fox turret lathes, fric. hd.  
No. 4 Brown & S., b. g., fric. hd.

### PUNCH PRESSES AND SHEARS.

No. 33P Toledo.  
No. 51 Toledo, 6 1/2" stroke.  
No. 71 Toledo double crank.  
No. 45 Toledo horning, b. g.

No. 1G B. & S. auto.; No. 2 former.  
Emco bench type, (10).  
No. 5 Bliss-Stiles, geared.  
7" capacity slitting shear.

### MISCELLANEOUS.

Bolt cutter, 1" Landis.  
Broaching machine, No. 1 LaPointe.  
Broaching mch., No. 3 LaPointe 2sp.

Gear cutter, No. 13 B & S., bevel & s.  
Gear cutters, Waltham auto., (4).  
Keyseater, No. 2 Davis.

## USED AND REBUILT MACHINERY

### FOR SALE BY

**McMullen Machinery Company,**

**Grand Rapids, Mich.**

Automatics, 9" Cleveland, (2).  
Band saw, Napier, metal.  
Cut-off machine, Waterbury-Farrel.  
Cut-off saw, No. 4 N. & B.  
Grinder, Gisholt tool.  
Grinder, No. 6-A Bryant.  
Lathe, 24x26 Greenlee flat turret.

Lathe, 9" Porter-Cable.  
Miller, No. 2-H Becker vertical.  
Millers, No. 25 Becker plain, (2).  
Pipe machine, 6" Merrill No. 64.  
Press, Chicago scrap baler.  
Press, No. 3 Manville, dbl. acting.  
Welder, No. 10-A Thomson.

Ask for complete list.

### FOR SALE BY

**Clark Machinery Co.,**

**1235 St. Clair Ave.,**

**Cleveland, O.**

We offer the following real bargains:

Grinders, Pratt & Whitney 6"x48" plain cylindrical, (2), each.....	\$ 175.
Grinder, No. 6 Bryant chucking grinder.....	75.
Milling machine, Cincinnati 18" automatic.....	300.
Milling mches., Kempsmith No. 32 manufacturing, with pump, (3) each.....	100.
Planer, 26"x28"x 7' Gray.....	600.
Planer, 28"x28"x 8' Gray.....	675.
Screw machines, Foster No. 6, with power feed to both turret & cut-off.....	850.

### FOR SALE BY

**The O'Brien Machinery Co.,**

**113 N. Third St., Philadelphia, Pa.**

Boilers, h. r. t. and vertical.  
Boring mill, No. 14 Beaman Smith horizontal, floor type, 34" bar.  
Boring mill, vert., 64" Bullard, 2 hds.  
Boring mill, vertical, 8' Pond, 2 hds.  
Compressors, 12"x10", ER 1, 325 cu. ft., (3).  
Die sinker, No. 2 Pratt & Whitney.  
Die sinker, No. 3 Pratt & Whitney.  
Die sinker, No. 4 Pratt & Whitney.  
Drill, 32" Aurora, motor driven, tapping attachment.  
Drill, 22" Aurora sliding hd., belt dr.  
Drill, radial, 6' Dreses full universal, s. p. drive.  
Drill, radial, 5' Ridgway, motor dr.  
Gear cutter, 12" Gould & E.  
Grinder, No. 6X Diamond disc.  
Grinder, No. 2 Cinti univ. 12x36.  
Hammer, 2500 lb., n. b. p., dble. leg.  
Hammer, 2500 lbs. Chambersburg steam drop.  
Hammer, 2000 lbs. Chambersburg, double frame, steam.  
Hammer, 1000 lbs. Chambersburg steam drop.  
Hammer, 600 lbs. Cham'burg st. d.  
Hammer, 1000 lbs. Niles-Bement-Pond, double frame.  
Lathe, 36"x29" McCabe, belt, q. c. g.  
Lathe, 30"x26" Lodge & Shipley, belt, q. c. g.  
Lathe, 27"x14" Betts, geared head, heavy duty, q. c. g., large hollow spindle, taper attachment.  
Lathe, 27"x10" LeBlond, tur. attach.  
Lathe, 30"x30" Harrington.

Lathe, 16"x8" Cisco, h. s., q. c. g., taper.  
Motors, all sizes.  
Milling mche., No. 3 Garvin duplex.  
Milling mche., No. 5-B Becker vert.  
Milling mche., 24"x6"x18" Oesterlein plain.  
Pipe machines, 2", 4", 6", 8" & 12".  
Oster, Cox, Williams, Eaton-Cole & Burnham and Jarecki makes, belt or motor driven, comp. stock.  
Planer, 36"x36"x24", Bement, 4 hds.  
Planer, 32"x32"x8" Bement-M., 2 hds.  
Press, No. 794 Bliss trimming press, with side shear.  
Presses, Nos. 2, 3, 4 Federal, new.  
Presses, Nos. 18, 19 and 20 Bliss.  
Press, Chambersburg motor driven trimming.  
Press, Bliss No. 2, Stiles pat.  
Press, No. 049 Toledo.  
Press, No. 4 Leffler inclinable.  
Punch, multiple, 72" Cleve., dbl. grd.  
Punch and shear, Pels combination; punching cap. 1" thick; shearing, 2" rd., 24" squares, 6x6x1" angles.  
Punch and shear, 12" throat Cleveland, type EF.  
Saw, Newton No. 2 cold saw.  
Saw, Espen Lucas No. 10 cold saw.  
Shapers, 12", 14", 16", 21" and 24" stroke, assorted makes.  
Shaper, 3 Bement-Miles massive heavy duty, traveling head.  
Shapers, 20" Stockbridge, with speed box, (3).  
Shear, 10" G. Ohl, 1/16 cap., belt dr.

## USED AND REBUILT MACHINERY

### FOR SALE BY

**J. P. Rentschler & Co., 6722 N. Maplewood Ave., Chicago**

Hammer, drop, 200 lb. Bliss 4-poppet, with flanged pulley and shaft.  
Presses, Bliss Nos. 18, 19, 19-C and 20 open back inclinables.  
Presses, Bliss No. 52 straight side, 14" stroke, f. w., (2).  
Press, Bliss, No. 14 toggle drawing, draw and lift out 4", wgh. 9000 lbs.  
Presses, Walsh, Nos. 3 and 54 open back inclinables, Standard.  
Press, Walsh double crank, 36" between uprights, f. w., 3" stroke, 12000 lbs.  
Press, R. & K. No. 8, straight side geared, 4" stroke, wgh. 24,000 lbs.  
Press, Consolidated No. 67, straight side, geared, 6" stroke, wgh. 30,000 lbs.  
Seamers, McDonald No. 12 automatic, double, with attachments, new, (2).  
Thread rolling machine, Bliss No. 123, for heavy material, wgh. 3700 lbs.  
Many other bargains. Send us your inquiries. Lowest prices.

### FOR SALE BY

**Wm. C. Johnson & Sons Machinery Co.,  
1211-1223 N. 12th St., St. Louis, Mo.**

#### PLANERS AND SHAPERS.

10"x7"x25' Detrick & Harvey.  
30"x30"x8' Belmer.  
24"x24"x 6' Powell.

48"x48"x14' Pond.  
18" Walcott crank shaper.  
24" Cincinnati crank shaper.

#### DRILLING MACHINES.

3-spindle Allen.  
4-spindle Allen, h. s.  
Avey high speed, bench.  
20" Champion.  
23" Barnes.

22" Barnes, sliding head.  
24" Aurora.  
32" Mechanics, sliding head.  
6' arm Cincinnati-Bickford.

#### MILLING MACHINES

No. 12 Kempsmith.  
No. 25 Becker.  
Owen duplex.  
No. 3 Cincinnati plain.

No. 3 Oesterlein plain.  
No. 14 Brown & Sharpe.  
No. 3 Rockford, hand.  
No. 24B Milwaukee vertical.

#### LATHES.

42"x14' Schumacher & Boye.  
34"x14' Putnam, triple geared.  
26"x12' Putnam.  
21"x12' Sidney, q. c. g., t. a.  
20"x11' Lehman.

20"x10' Boye & Emmes.  
18"x 8' Boye & Emmes.  
15"x 6' Monarch, q. c. g.  
10"x 5' Star bench, t. a.

#### GRINDERS.

No. 2 Diamond surface.  
No. 2 Walker universal.  
No. 1 Fraser surface.  
10"x30" Webster & Perks, univ.  
5"x18" Ott.

Schmidt auto. cylinder.  
No. 50 Gardner, disc.  
No. 16 Brown & Sharpe plain.  
8" Heald rotary, magnetic chuck.  
Washburn twist drill grinder.

#### SCREW AND TURRET MACHINES.

2"x24" J. & L., geared head.  
3"x36" J. & L., geared head.  
No. 1 Pratt & Whitney, (2).

No. 3 Wood Tilted Turret.  
No. 4 Wood Tilted Turret.

#### GEAR CUTTERS.

No. 1 Schuchardt & Schutte.  
No. 1 Farwell hobber.

30" Flather, spur.

#### PRECISION TOOLS.

No. 1 Dayton swaging machine.  
No. 3 Langelier swaging machine.

No. 34-7" swing Stark bench lathes.

#### MISCELLANEOUS.

Air compressors, (17).  
Belt lacers, 9" & 12" Peerless.  
Boring mill, 42" Niles, 2 heads.  
Boring mill, 84" Niles.  
Boring mche., hor., No. 2 P. & H.  
Bulldozer, 75-ton Lorie hydraulic.  
Furnaces, Stewart cyanide hardening  
Hammer, Bradley 60 lb.  
Hammer, 800 lb.

Keyseaters, Nos. 2 & 4 Mitts & M.  
Metal saw, Espen-Lucas 31".  
Presses, No. 19 Bliss.  
Punch, No. 7 Long & A., 4" throat.  
Shear, 62", 18" gap, No. 10 ga.  
Taper rolling mche., No. 2 Hess.  
Wheel press, 40", 150-ton.  
Wheel press, 90", 300-ton.

## USED AND REBUILT MACHINERY

### FOR SALE BY

#### Foster Machinery Company,

Bolt cutter, 1½" Acme.  
Boring mill, vertical, 42" Bullard.  
Grinder, No. 60 Heald, cylinder.  
Hack saws, 12x12 Racine.  
Lathe, 16"x8" Monarch.  
Lathe, 18"x8" Lodge & Shipley.  
Miller, No. 00 Brown & S., hand.

#### 10203 Quincy Ave., Cleveland, O.

Planer, 26"x26"x8' Gray.  
Press, No. 3 Stiles.  
Riveter, High Speed No. 3-A, h. d.  
Shear, alligator, Canton, cap. 1½" sq.  
Shear, 36"x18" gap, foot.  
Trolleys, I-beam, 1 & 2 ton.

### FOR SALE BY

#### The Central-West Machinery Co. 116-118 E. Water St., Cincinnati, O.

Drill, Aurora, back geared, power feed adjustable table \$ 100.  
Drill, Aurora, tap, att. w. & I f. 100.  
Drill, radial 3" Mueller, p. f. 375.  
Gear hobber, No. 3 Farwell, 26" 900.  
Grinder, 10"x30" Landis 325.  
Grinder, No. 60 Heald, cylinder 600.  
Lathe, 14"x8" Steptoe q. c. 400.  
Lathe, 14"x12" Carrol & J. 250.

Lathe, 16"x8" Cincinnati, q. c. \$ 475.  
Lathe, 18"x12" LeBlond, l. c. 350.  
Miller, hand No. 0 Steptoe 125.  
Miller, pl., No. 3 Kempsmith, a. p. f. 750.  
Planer, 26x26x14 Lodge & D. 400.  
Planer, 30x30x16 Gray, 2 hds. 1000.  
Tur. lathe, No. 4 Milholland, (2) 450.  
Turret lathe, 3x36 J. & L. (bar) 650.

### FOR SALE BY

#### Jones Machine Tool Co.,

#### Front & Pike Sts., Cincinnati, O.

#### LATHES.

16"x 6' LeBlond, q. c. g.  
16"x10' Monarch, q. c. g.  
20"x10' Reed Prentice, grd. head.  
20"x10' Lodge & Shipley, q. c. g.

19"x10' LeBlond, q. c. g.  
26"x12' Reed, l. c., t. a.  
38"x28" American, geared head.  
46"x17' New Haven, triple geared.

#### MILLING MACHINES.

No. 2 Hendey universal.  
No. 3 Cincinnati plain.  
No. 4 Cincinnati plain.  
No. 5 LeBlond plain, s. p. drive.

No. 1½ American plain.  
No. 3 Brown & Sharpe plain, (2).  
No. 3 LeBlond plain.  
No. 3 B. & S. vert., s. p. drive.

#### RADIALS AND DRILL PRESSES.

3' Bickford, cone drive.  
4' Morris, s. p. drive.  
5' Carlton, s. p. drive.  
6' Dreses, motor drive.

24' Hofer, stationary head.  
24' Rockford, sliding head.  
30' Cincinnati, sliding head, t. a.  
4-spindle Avey, b. b.

#### PUNCH PRESSES AND SHEARS.

No. 2 Niagara, o. b. inc.  
No. 18 Bliss, o. b. inclinable.  
No. 2½ Consolidated, o. b. inc.  
No. 5 Etna, o. b. inc., 3" stroke.  
No. 63 Consolidated s. s. press.  
No. 64 Consolidated s. s. press.

No. 17 Williams & White, 24" thr.  
No. B Long & Allstatter, 18" thr.  
No. 6 Whiting, single end.  
No. 3 Bliss double crank.  
No. 34 Toledo, stiff back.  
No. 31 Toledo, stiff back.

#### PLANERS AND SHAPERS.

24"x 6' Powell, 1 head.  
30"x 8' Cincinnati, 1 head.  
24" Kelley shaper, b. g.  
20" Cincinnati shaper, b. g.  
20" Columbia shapers, b. g.

17" Smith & Mills, b. g.  
16" Smith & Mills, cone drive.  
16" Ohio, b. g. shaper.  
16" Rockford, b. g. shapers.  
16" Gould & Eberhardt shaper.

#### MISCELLANEOUS.

Bolt cutters, 2½, 1½" & 1" Acme.  
Bolt cutter 2½" Landis, lead screw.  
Boring mill, 42" Bullard vertical.  
Boring mill, Fosdick 3" horizontal.  
Boring mill, Cleveland 2½" horiz.  
Brake, hand, 10' Robinson, 16 gauge.  
Chain hoists, various sizes.

Hammer, steam, 800 lb. Niles.  
Hammer, steam, 3000 lb. Erie.  
Millers, hand, (6).  
Press, 30-ton Lucas forcing.  
Press, 50-ton Lucas forcing.  
Shear, power square, 60" Robinson.  
Slotter, 10" Niles vertical.

Write for our large Stock List.

# USED AND REBUILT MACHINERY

## FOR SALE BY

**J. E. Haetten & Co., Inc.,**

**50 Church St., New York, N. Y.**

Automatic, 1" No. 7112 Gridley, 4-sp., chucks, tools, etc.	\$1400.
Automatic, 1 1/2" Cleveland model "A", used 2 months	450.
Automatic, 1 1/2" Gridley, single spindle, serial No. 3540	500.
Automatic, 1 1/2" and 1 1/2" Cleveland model B	100.
Blower, 200 F. M. Roots positive	100.
Blue printer, Revolute 45" continuous, 30 amperes, wash trays	400.
Boring mill, No. 31 Lucas horizontal, 3 bars	2500.
Box nailing machine, 12 nails, 10 D, 36" range, used 4 months	600.
Furnace, 4x8 opening, Gilbert & Barker, gas	75.
Grinders, No. 70 Heald internal, perfect	950.
Grinders, 10"x36" Norton BA, 220-v., 3 ph., like new	2100.
Grinder, 14x36 Pratt & Whitney surface, new, 10x32 mag. chuck	500.
Grinder, 18x96 Norton plain, c. s. drive, good	800.
Hammer, 200 lb. Gould & Eberhardt, sheave lift	250.
Lathe, 24-42x8' Harrington, sliding bed gap	700.
Lathe, 7x36 Ames precision, brand new, list price \$466	300.
Lathe, 14"x6" Simplex tool room, taper draw in	600.
Lathe, 14"x6" Prentice, s. b. g., loose change gears	125.
Lathe, 12"x6" Pratt & Whitney, s. b. g., f. c. g.	100.
Miller, No. 1B Milwaukee, plain, perfect	650.
Miller, No. 3 Cincinnati vertical, s. p. d., 95%	1100.
Milling head for 24 to 30" Ingersolls, with screw and gear	200.
Press, 60 ton Waterbury-Farrell knuckle joint, 4" stroke, geared	700.
Press, single crank, 5500 lb. Waterbury-Farrell 4" stroke, geared	650.
Shafting, 90' 1-7/16 line, 34 pulleys, 17 hangers	100.
Turret lathe, 1 1/2" B. & O., hand feed, A1	250.
Turret lathes, 1" Pratt & Whitney, hand operate, (2)	each 250.
Welder, No. S-6-1 Taylor, 10 k. v. a. spot	300.

## FOR SALE BY

**F. W. Burns Machinery Co.,**

**Sattley Bldg., Racine, Wis.**

### PUNCH PRESSES.

No. 1 1/2 Bliss toggle drawing.	Nos. 4 and 5 Long & Allstatter, double end.
No. 64-A Consolidated, f. w. type.	No. 10 Excelsior, 20" throat.
No. 51 Toledo arch press, geared.	No. 56 Beloit punch & shear.
No. 83 Consolidated, adjustable tbl.	No. 67 Consolidated, geared.
No. 60 1/2 Bliss rack and pinion.	No. 6 Toledo, geared, stroke 3".
No. 30 Cameron arch press, f. w. type.	

### AUTOMATICS

2" & 2 1/2" Cleveland.	No. 1 Brown & Sharpe screw mche.
No. 2-G. Brown & Sharpe, 1" cap.	No. 4 Warner & Swasey, powerfeed.
No. 3 Acme screw slotter.	No. 3 Bardons & Oliver.

### LATHES.

16"x 8' Hamilton, q. c.	9"x14" Porter-Cable.
20"x10' Bradford, q. c.	20"x18" Pond.
18"x8' Lodge & Shipley pat. hd., q. c.	15"x 8' South Bend, loose change.
22" Prybil spinning lathes.	

### MISCELLANEOUS.

Blowers, rotary, No. 1 and No. 2 American Gas.	Grinders, No. 1 1/2 Landis universal.
Bolt threader, 1 1/2" Acme.	Miller, No. 1 Garvin universal.
Drill press, Kerns 6-spindle 16", h. s., b. b.	Miller, No. 3 Burke hand.
Drill press, Leland-Gifford, 5-spindle 12", h. s., b. b.	Nailing machine, Doig 8 track.
Drill press, Barnes, 2-spindle 20", camel-back.	Planer, Gorton No. 10-F 58"x56"x14", two heads on rail, two side heads; brand new, bargain.
Engraving mach., No. 1-A Gorton.	Riveting hammer, No. 6-B H. S. 4".
Forging machine, No. 1 1/2 Ajax.	Shapers, 15" & 24" Potter & J.
Grinder, Detroit centerless.	Welders, butt, No. 20-A-10 Thomson, new, bargain.

## USED AND REBUILT MACHINERY

### FOR SALE BY

**R. L. Green Machine Works.** 219 Monmouth St., Trenton, N. J.

#### MILLING MACHINE.

No. 3 Milwaukee plain single column milling machine.

### FOR SALE BY

**Botwink Brothers, Inc.,** 67 Water St., New Haven, Conn.

#### MAGNETIC CHUCKS

25 Brand new Taft-Peirce Mfg. Co. style No. 810 plain magnetic chucks, size 10"x8", 110 volt. List price \$200.00 each. Our price \$50.00 each.

Wire, write or phone. Many other bargains.

### FOR SALE BY

**A. M. Stoehr Machinery Co.,**

560 W. Adams St., Chicago, Ill.

Boring mills, 20" Bullard; 60" & 12' Niles; all have 2 heads.

Brake, 8' Dries & Krump, 14 gauge. Compressors, 12 different sizes.

Drill presses, 4-spindle Avey, h. s.

Engraving machines, 3 Gortons.

Furnaces, melting, for soft metal and aluminum.

Gear cutters, 72" Brown & Sharpe;

60" Gould & Eberhardt; and others.

Grinders, LaSalle pl. and automatic.

Lathes, 18x8 Barnes, hvy. duty; 11" Rockford; and others.

Milling machines, plain & universal;

also No. 20 Van Norman, duplex.

Oil extractors, centrifugal, (8).

Punch presses, No. 16 Bliss horning; No. 34 Bliss; arch, and others.

Punch & shears, No. 3 Long & A., d. e., 4" thru 12"; No. 14 W., d. e., 15" throat; No. 5 Long & A., d. e.

Riveters, No. 103 Grant, motor drive; Nos. 4-A & 5-A High Speed; No. 1 L. & A., 1" cap.; No. 8 Stimpson

automatic, for split rivets.

Saws, 9x9 Sterling high speed; 12" band.

Screw machines, (2); Nos. 52 & 53 Acme; others plain and automatic.

Tapper, R. & S., 1" capacity.

Welders, both spot and butt.

Wire straightening machines, (5).

### FOR SALE BY

**Severin-Tripp Machinery Co.,**

25 Church St., New York, N. Y.

Boring mill, vertical, 53" Niles.

Boring mill, vertical, 96" Betts.

Boring mill, vertical, 12" Betts.

Boring mill, horizontal, D. & H. 5" spindle.

Boring mill, hor., Niles, 4 1/2" spdl.

Boring mill, hor., Niles 6" spindle.

Boring mill, hor., Bement 4" spdl.

Brake, 8' Ohl, 16 gauge.

Bulldozer, Wm. & W. No. 3.

Compressor, C. P. T. 15x9x10.

Compressor, C. P. T. 8x8.

Compressor, Gardner, 8x6.

Crane, 5-ton, 45' span, 140' runway.

Crane, 5-ton, 52' span, 170' runway.

Gear cutter, 36x9 Gould & Eberhardt.

Hammers, Nos. 3B & 4B Nazel.

Hammer, 400 lb. Chambersburg.

Lathe, 18" x 6' Champion.

Lathe, 24" x 12' Prentice, geared hd.

Lathe, 27x12 L. & S., b. d.

Lathe, 30" x 12' American.

Lathe, 36" x 30' L. & S., geared head.

Lathe, 48" x 38' Pond.

Lathe, 60" x 38' Pond.

Lathe, 72" x 38' Pond.

Lathe, gap, 18" x 36" x 8' Fay & Scott.

Pipe machines, 6" & 8" Saunders.

Pipe machines, 4" Bignall & Keeler.

Planer, 36" x 16' Pond, m. d., d. c.

Planer, 36" x 36" x 26' Pond.

Planer, 42" x 42" x 26' Pond.

Planer, 72" x 72" x 30' Sellers, b. d.

Press, 1500-ton Mesta.

Press, 1200-ton U. E. & F.

Punches, No. 4 Hilles & J. dbl. end.

Radial drill, 30" Gang.

Radial, 6' American, d. c. drive.

Riveters, Hanna, (3).

Rotary planer, Cleveland.

Rotators, 5-ton, 5-7 1/2, 25-ton.

Shaper, 24" Cincinnati.

Shear, No. 60 Quickwork.

Shear, 72" H. & J., 1" cap.

Straightening rolls.

Upsetter, National 1".

## USED AND REBUILT MACHINERY

### FOR SALE BY

**J. L. Lucas & Son, Inc. - No. 3 Fox Street, Bridgeport, Conn.**

#### BORING MILLS.

24" Bullard, v. t. l., 3 jaw comb., chuck table, with New Era hd., serial 6920.  
36" Bullard, v. t. l., 3 jaw comb., ck. tbl., pwr. rapid traverse, serials 5000, (2).  
40" Bullard two head vertical boring mill.

#### DRILLS.

No. 11 Natco multiple, 7-spindle.  
No. 12 Natco multiple, 12-spindle.  
No. 13 Pratt Whitney 12-spindle.  
Radial, 3' Carlton, tapping att., (2).  
Radial, 4' Hammond, tapping att.

#### GRINDERS.

No. 2 Taft-Peirce univ. full equipt.  
6x32 Norton pl., late type, serials 8300.  
10x18 Norton pl., late type, serial 9600.  
10x80 Norton plain.  
24x144 Landis plain, rebuilt.  
No. 6—20 Besly double spindle disc.

#### HAMMERS.

100 lb. Bradley Compact.  
250 lb. Beadry Champion.  
No. 5 500 lb. Mossberg auto. drop hammer.  
600 lb. model D. Billings Spencer.

#### LATHES.

14"x6' Hendey, yoke head, (15).  
16"x8' Hendey, yoke head.  
32"x18' New Haven, 95% new.  
32"x12' Bridgeford, grd. hd., mtr. dr.

#### MILLERS.

1B Milwaukee plain, auto. feeds.  
No. 2 LeBlond univ. equipment.  
8" P. & W. auto. millers, (brand new).  
12" P. & W. auto. millers, rebuilt  
No. 24 Ohio heavy duty plain, q. ch.  
No. 34 Ohio heavy duty pl., dbl. b. g.

#### MISCELLANEOUS.

Eyelet machines, No. 05 Waterbury.  
Gear cutter, 4" Waltham, excellent.  
Press, No. 20 Bliss, new.  
Surfacer, No. 3 20" Peerless horiz.  
1x5 New Britain auto. screw.  
No. 24 New Britain chucking.  
Tappers, 4-spindle Webster Perks.  
Thread miller, 6x48 Pratt & Whitney.

### FOR SALE BY

**McDonald Machinery Co., 1531-33 N. Broadway, St. Louis, Mo.**

Bolt threader, Acme 2 and 3 heads.  
Clock, electric time system.  
Demagnetizer, Walker.  
Drill, Baush 18-spindle.  
Drills, Baker and Rockford heavy duty.  
Drills, Leland-Gifford 2 and 3 spindle, h. s., b. b.  
Drill, Detroit 5-spindle horizontal.  
Drill, Gardam 12-spdl. adjustable.  
Drills, Demco, H. & W., Kokomo 1-spdl., Sipp 1 & 2-spdl., h. s., b. b.  
Drills, 20", 24", 34" b. g., & tapping.  
Furnace, Holcroft 92 k. w. annealing.  
Gear shaper, Fellows 36".  
Grinder, Heald No. 60 cylinder.  
Grinders, Blount, 20" wet, (3); P. & W. 14" vertical surface; Ott 5"x18"; Landis 12"x48"; plain; Norton 10"x24" plain; Modern internal.  
Hack saws, 4x4, 6x6 & 6 Racine Jrs; Atkins 4x4", 8x8" high speed.  
Lathes, South Bend 24"x14"; LeBlond 16"x8"; 20"x8", q. c. g.; Davis 22"x10'; Star 12x5, tool room; L. & S. 16"x6"; Cataract precision, collets, cross slides, etc. 40 other assorted sizes.  
Punches, Wetterhahn 18", throat 1" in 1"; Long & A. No. 0, 1" in 1".  
Planers, Gray 28"x28"x6", 1 head.  
Punch presses, Bliss No. 18 and Toledo No. 1; Swaine Nos. 29, 33 and 37 o. b. i., and Swaine 40 arch; Rockford No. 2, o. b. i.  
Milling and drilling mches., Knight No. 1 1/2 with p. f., rotary att.  
Milling machines, Kempsmith No. 2; Ohio No. 20 plain; Becker "SD" vertical, rotary table, 17200 lbs.; Cin'ti No. 3 pl.; American No. 1 1/2 univ.; B. & S. No. 1 pl.; B. & S. 1 1/2; Ohio 34; LeBlond No. 3-H plain; Brown & Sharpe; No. 3 plain.  
Rivet spinner, Grant 3/16".  
Screw machine, Gridley 1-spdl. 2 1/2" auto.; Cleveland 1 1/2" auto.; P. & W. No. 2 1/2 hand; Foster No. 3 hand; Woods No. 2 tilted turret head; Bardons & Oliver No. 7.  
Shapers, Springfield 12"; Whipp 16"x20"; 24" Barker; 14" Steptoe; S. & M. 13"; Cincinnati 24" and 24", b. g.  
Schleroscope and amplifying gauge.  
Shears, 60" thrt. rotary slitting, (2).  
Tapping machine, Garvin No. 2.  
Welders, 20 k. w. spot. Winfield.  
Welders, butt, Federal, 3" rds.  
Lot of iron bench legs.

## USED AND REBUILT MACHINERY

### FOR SALE BY

**Wm. C. Pope, 1352 Pearl St., Seattle, Wash.**

Grinder, practically new No. 120 Gardner disc grinder, ball bearing.  
Lathe, 38"x40" Putnam engine lathe, taper attachment, compound rest, automatic cross feed, quick change feed, plain change gears, face plate drive.  
Planer, 96"x96"x16" heavy Betts planer, 4 heads, steel geared, fine condition.  
Slotter, 24" heavy motor-driven slotter, used 30 days.

### FOR SALE BY

**Taylor-Hall Welding Corporation, 3 May St., Worcester, Mass.**

#### BUTT AND SPOT WELDERS.

Guaranteed to be in perfect condition.

One Thomson 75 p. a. spot welder.	One Toledo No. 3 butt welder.
One Toledo 171 spot welder.	One Thomson 10-A-6 butt welder.
One Toledo 110 spot welder.	One Thomson 2A butt welder.
One Thomson 137 spot welder.	One Thomson 21 auto. butt welder.
One Thomson 49-A butt welder.	One Thomson 2A auto. butt welder.
One Thomson 20-A butt welder, new.	One Thomson 5A butt welder.

Many Others.

### FOR SALE BY

**Clinton Machinery Co., 128 So. Clinton St., Chicago, Ill.**

#### MILLING MACHINES.

No. 3H LeBlond univ., fully equipt.	No. 1Y Brown & Sharpe plain, (2).
No. 3 Ohio plain	No. 3 $\frac{1}{2}$ Fox, p. f.
No. 20 Van Norman duplex, compl.	No. 00 Brown & Sharpe, hand feed.
No. 2AU Garvin univ., fully equipt.	No. 0 Bristol, hand, ball bearing.
No. 2 $\frac{1}{2}$ LeBlond plain.	Hardinge & Pratt-W. bench type.

#### LATHES.

36"x18" American grd. head, single pulley dr., fully equipt., q. c. g.	14"x 6" Hendey, q. c. g., oil pan, taper attachment, draw attachment, collets, relieving attachment, (3).
18"x8" Boye & Emmes, q. c. g., d. b. g. taper attach., collets, chuck.	14"x6" Monarch, q. c. g., d. b. g., comp.
18"x 8" Giddings & L., s. q. c., compl.	14"x 6" Porter-Cable, q. c. g., oil pan, complete.
16"x 8" Prentice, q. c. g., complete.	10"x 5" Seneca Falls, draw-in collets.
16"x 8" Canedy-Otto, s. q. c.	9"x 3" Stark bench. collets.
14"x 7" South Bend, complete.	Cataract, Van Norman bench lathes.
14"x 6" Rockford, s. q. c., d. b. g.	

#### DRILLS AND PUNCH PRESSES.

20" Rockford, b. g., p. f., w & l. fd., (3).	Knight drilling and milling mche.
20" New Excelsior, b. g., p. f., w. l. fd., (3)	3-spindle Barnes, gang drills.
16" Kokomo, high spd. with gear box.	4-spindle Barnes, gang drills, (2).
1-spindle, Leland & Gifford, h. s., b. b., $\frac{3}{8}$ " capacity, (2).	No. 00 Verson bench punch pr., (3).
1, 2, 3, 4 and 6-spindle Avey, No. 2, h. s., b. b., $\frac{3}{8}$ " capacity.	No. 3 Swaine, o. b. i.
4-spindle H. & W., h. s., b. b., (2).	No. 3 Consolidated, o. b. i., b. g.
	No. 4 American Can, o. b. i.
	No. 6 Toledo, o. b. i., b. g.

#### SHAPERS

7" Rhodes.	16" Ohio, b. g.
16" Rockford, b. g.	21" Smith & Mills, b. g.

#### SCREW MACHINES AND BOLT CUTTERS.

No. 1 Foster, wire feed and collets.	1 $\frac{1}{2}$ " Landis single head bolt cutter.
No. 1 Warner & S., wire fd., collets.	1 $\frac{1}{2}$ " Geometric bolt cutter.
No. 1 Bardons & O., wire fd., collets.	No. 4 W. & S., wire feed and collet.

#### MISCELLANEOUS.

Grinder, No. 1 B. & S. univ., comp.	Motor, 75 h. p. General Electric slid ring, 1200 r.p.m., 3 ph., 220v., compl.
Grinder, No. 1 LaSalle surface.	Motors, $\frac{3}{4}$ h. p. to 50 h. p.
Grinder, 14" wheel, 3-h. p., 3 ph. 60 cy., 1800 r.p.m. HiseyWolf electric.	Oil separators, motor driven.
Hoists, 3-ton Yale-Towne chain, (3).	Punch, 22" throat, Scully single end, architectural jaw & shearing att.
Keyseaters, Nos. 1 & 2 Davis.	



## USED AND REBUILT MACHINERY

### FOR SALE BY

**Syracuse Supply Company. 314 W. Fayette St., Syracuse, N. Y.**

Guaranteed NEW MACHINES in original crates at prices below list:

Automatic, 2½" Gridley, single spindle. | Screw mchs., No. 4 W. & S., g.l.h., (3).  
Pipe machine, No. 70 Forbes. | Straightener, No. 2½ Corey.

Exceptional values in USED TOOLS:

Automatic, 14" model A., Cleveland.	Miller, No. 5 Becker vertical.
Drill press, 4-spindle Barr sensitive.	Miller, No. 4 LeBlond plain.
Drill press, 22" Prentice, rebuilt.	Planer, 30"x30"x16" L. W. Pond.
Drill presses, 2-spindle Woodward & Rogers sensitive.	Planer, 60"x60"x22" Niles.
Grinder, 24" Safety Emery Wheel Co. snag grinder.	Radial, 5" Pond.
Grinder No. 33 abrasive.	Tilted turret, No. 6 Wood.
Lathe, 12"x 5" Reed.	Turret lathes, No. 4 Foster (2).
Lathe, 16"x 8" American, geared head, rebuilt.	Turret lathe, No. 2 Warner & S., hollow hex.
Lathe, 16"x10" American.	Turret lathe, No. 3 Cincinnati Acme.
Lathe, 20"x12" Reed.	Turret lathe, 2½x26 Pratt & Whitney.
Lathe, 8x60 Fitchburg lo-swing.	Turret lathes, 3x36 Jones & L. (3).
Miller, 3½ Bilton automatic, (2).	Turret lathe, 2x24 Jones & Lamson.
	Turret lathe, 21" Gisholt.
	Turret lathe, 24" Steinle.

### FOR SALE BY

**Fitzsimmons & Cole Machinery Company**

**1208 House Building.**

**Pittsburgh, Pa.**

Air compressor, Ingersoll 10x10, 150'.	Planer, o. s. Cleveland 48"x48"x20'.
Blower, No. 6 Buffalo, cupola, b. d.	Planer, rotary, No. 2 Cleve., 48" hd.
Bolt cutter, 1½", 2", 2½", 4" Landis.	Press, baling hyd. No. 23-Plogemann
Boring mill, 42" Bullard, b. d.	Press, Ferracute P-1, 1½" stroke.
Boring mill, 76" Bullard, b. d.	Press, No. 5-A Toledo, o. b. i., 3" str.
Boring mill, 84" Pond, 2 hds., b. d.	Press, No. 37½ Bliss, s. s., 6" stroke.
Bulldozer, No. 25 W. & W., m. d.	Press, toggle, No. 1½ Bliss.
Drill, radial, 6" Prentice, s. p. d.	Press, wheel, 200-ton Niles, standard.
Drill, 14" Hamilton upright, b. d.	Press, forging, 500-ton United, st. hyd.
Drill, 24" Cinti. upright, sliding hd.	Punch, hor., Cleveland, 1" thru 1"
Flanger, McCabe, ½" capacity.	Punch, multiple, No. 5 H. & J., 10'.
Gear planer, 24" Gleason, bevel, b. d.	Punch & shear, 30" throat, 1" thru 1"
Grinder, dbl. emery, wheels 18" dia.	Punch & s., Pels comb., 1½" thru 1"
Grinder, 16"x48" Landis, crankshaft.	Riveter, Hanna, 18" thrt., 15" gap.
Grinder, 16"x68" Landis, crankshaft.	Riveter, Allen, 66" throat, 15" gap.
Grinder, No. 16 Blanchard.	Riveter, stake, No. 6 Whiting, 48" thrt.
Hammer, 50 lb. Mayer, upright.	Rolls, angle bending, 6x6x1" K. & R.
Hammer, 200 lb. Beaudry, upright.	Rolls, bending, 48"x3"
Hammers, 2-B, 3-B, 4-B & 4-N Nazel.	Rolls, bending, 8"x1" N.-B.-P.
Header, 2" National rivet.	Rolls, bending, 10"x1" H. & J.
Keyseater, No. 0 Mitts & Merrill.	Sand blast, MacLeod, 36"x36".
Keyseater, No. 2 Mitts & Merrill.	Saw, cold, 20" Higley.
Lathe, 16"x6" American, q. c. g., t.a.	Shaper, Cincinnati, b. g., b. d.
Lathe, 48"x30" Pittsburgh, b. d.	Shaper, 24" Gould & Eberhardt, b. d.
Lathe, axle, Bridgeford, dbl. hd., m. d.	Shear, angle, H. & J., cap. 6"x6"x1".
Lathe, car wheel, 42" Niles, d. e., m. d.	Shear, alligator, United, cap. 1½" sq.
Miller, duplex, 42" Niles, tbl. 14"x22"	Shear, bevel, Lenox 1"
Miller, plain, No. 3-B Brown & S.	Shear, guil., No. 3 H. & J., cap. 2½" sq.
Miller, plain, No. 4 Cincinnati.	Shear, rot., No. 110½ Bliss, 3/16" cap.
Miller, plain, No. 5 B. & S., b. d.	Shear, rotary, No. 6 Quickwork, 1"
Miller, slab, 24x20x14" Ingersoll.	Shear, rotary, No. 3 Quickwork, 1"
Miller, univ., Oesterlein, 25x7x10".	Shear, 10"x3" Cincinnati, m. d.
Pipe machine, 12" Jarecki, b. d.	Shear, 7"x1" United, b. d.
Planer, 36"x36"x10" Cincinnati, 2 hds.	Shear, 36"x3/16" Cincinnati, m. d.
Planer, 48"x48"x16" Pond, 4 hds., b. d.	Straightener, bar, No. 3 K. & R.
Planer, 96"x96"x20" Pond, 4 hds., m. d.	Straightener, beam, No. 4 H. & J.
Planer, o. s., Cleveland, 36"x36"x16".	Straightening rolls, 42" cap. 12 ga.
Planer, o. s., Cleveland, 48"x48"x12".	Testing machine, 100,000 lbs. Riehle.

## USED AND REBUILT MACHINERY

### WANTED BY

The Stearns-Roger Mfg. Co.

1718 California St.,

Denver, Colorado

### BORING MILL

We are in the market for a 54" Bullard boring mill, one side head with square turret, one vertical head hex. turret. Must be modern.

### FOR SALE BY

B. L. Saltzman,

{ 809 W. Lake Street, Chicago, Ill.  
{ 524 W. Van Buren St., Chicago, Ill.

Bolt threader, Geometric 14".  
Boring mill, No. 1 Barrett.  
Drills, Cincinnati b. g., taper att., 20".  
Drill, Fox multi-spindle.  
Gear hobber, No. 5-A Lees-B.  
Gear generators, No. 6 & 11 Gleason.  
Grinder, No. 60 Heald internal.  
Grinder, Ott 5x18.  
Grinders, Taylor & Fenn cylinder.  
Lathes, D. & W. Pond 16"x7".  
Lathes, Lodge & Shipley 16"x10".  
Miller, No. 5 Ingersoll.

Miller, No. 5 LeBlond.  
Mills, No. 3 and No. 5 Cincinnati.  
Punch presses, Bliss, (Stiles type), No. 24.  
Screw machines, Bardons & Oliver No. 4.  
Screw machines, Foster No. 6.  
Screw mchs., Warner Swasey No. 6.  
Screw machines, Warner & Swasey, hand, Nos. 1 & 2.  
Shapers, 12", 16" & 24".

Motors and Generators—Factory Transmission.

### FOR SALE BY

Brown Machinery Co.,

2323 N. 9th St., St. Louis, Mo.

Blowers, Nos. 7 & 9 Sturtevant.  
Brake, 8' Robinson, cornice.  
Buffers, U. S. and Hisey, 3 h. p., 3-ph., 60 cy., 220 v.  
Compressor, steam drive, Norwalk 20x20x13x24, 960 cubic feet.  
Cut-off mchs., Nutter & Barnes.  
Drill, bench, No. 1 Langelier.  
Drill, 14" United States.  
Drill, 20" Canedy-Otto, b. g., p. f.  
Drill, 24" Aurora b. g., p. f., t. a.  
Drill, 25" Superior, sliding head.  
Drill, Baush No. 3, 26-spindle.  
Drill, Kokomo 4-spindle.  
Drill, No. 2 Barnes horiz. radial.  
Furnaces, Nos. 1 and 2 American.  
Grinders, emery, St. Louis & Western, 100 new at 50% discount.  
Grinders, drill, W. & M. American.  
Grinders, tool, Diamond.  
Grinders, tool post, U. S. & Hisey.  
Grinders, plain, No. 12 B. & S.; 10x26" Norton; 5x18" Ott.  
Grinder, cylinder, No. 60 Heald.  
Grinders, disk, No. 6 Besly; No. 14 Gardner.  
Grinder, universal, No. 12 B. & S.  
Grinder, 30" Diamond, roll or spdl.  
Hammer, size A United, 50 lbs., m.d.  
Hammer, drop, No. 3 W.-W.  
Hammer, helve, 40 lb. Bradley.  
Keyscater, No. 2 Davis.  
Lathe, 26"x10" Whitcomb-B., q. c. g.

Lathe, 20"x10" Walcott, q. c. g.  
Lathe, 20"x 8" Reed, s. b. g.  
Lathe, 20"x 8" Lodge & S., q. c. g.  
Lathe, 17"x 6" Cincinnati.  
Lathes, 16"x8" Monarch, q. c. g.  
Lathe, 16"x 7" Lehmann, q. c. g.  
Lathes, 16"x6" Monarch, q. c. g.  
Lathe, 14"x 6" Carroll-Jamieson.  
Lathe, turret, 16" Gisholt.  
Lathe, turret, No. 4 Wood, b. g., p. f. to turret.  
Motors, 1, 3, 5, 7½, 10, 15, 25 h. p., 3-ph., 60 cy., 220 v.  
Miller, No. 00 Brown & Sharpe.  
Miller, No. 6 Whitney hand.  
Miller, No. 3 Burke hand, bench.  
Miller, No. 4 Garvin plain.  
Miller, No. 1½ American univ.  
Planers, 60"x60"x20" Niles, 3 heads.  
Polishers, drop head, New Britain.  
Press, No. 5 Stiles & Parker, grd.  
Press, Bliss pattern, o. b. i.  
Press, No. 30 Arch.  
Punch and shear, No. 10½ Badger.  
Riveter, ½" Adt.  
Screw machine, 1" Pratt & Whitney.  
Shapers, 16" Gould & Eberhardt; 24" L. & D.; 24" S. & S.  
Shear, rotary, No. 13 Pettingell.  
Shear, rotary splitting, No. 134 Marshalltown, 4' throat, ½" cap.  
Tapping machines, Garvin; Burke C. No. 4 St. Louis.

Full Line of P. S. & W. Sheet Metalworking Machinery.

## USED AND REBUILT MACHINERY

### FOR SALE BY

**W. P. Little Co.,** West 9th & Front Sts., Cleveland, Ohio

#### GRINDERS.

No. 60 Heald cylinder.  
8" Heald rotary surface.  
No. 1 B. & S. universal.  
No. 3 Modern universal.  
6"x18" Landis plain self-contained.

10"x24" Landis, self-contained.  
No. 75 Heald internal.  
No. 6 Bryant chucking.  
No. 10 Besly disc.  
No. 24 Gardner vertical disc.

#### DRILLS, HEAVY DUTY.

No. 25 Foote-Burt, single pulley.

Baker type F (3).

#### LATHES.

14"x6' American, q. c. g. and t. a.

16"x6' Bradford, q. c. g. and t. a.

#### MILLING MACHINES.

No. 13 Garvin.

No. 0 Cincinnati plain.

#### POWER HAMMERS.

Beaudry, 50 lb. (2).

Bradley 50 lb. upright compact.

#### PUNCH PRESSES.

E. G. 22 Ferracute, geared.

No. 54 Cleveland straight side.

#### GEAR SHAPERS.

24" Fellows gear shapers, (2)

#### MISCELLANEOUS.

Cold saw, 20" Burke.  
Radial, 4' Bickford, semi-universal.  
Radial, 3' Bickford, cone type.

Slotters, 8" & 10" rotary tables.  
Spline miller, 2" Pratt & Whitney.  
Wiring machine, No. 1 Magee.

Partial list; send us your inquiries; 150 other tools in stock.

### FOR SALE BY

**The Randle Machinery Co.,** 1733 Powers St., Cincinnati, Ohio

Arbor presses, Nos. 3 and 7 Greenerd.  
Automatic, 4-spindle, 1 1/2" capacity.  
Automatic, 4 1/2" Gridley, 4-spindles.  
Bolt cutter, 1" Acme.  
Bolt cutter, 2" Acme.  
Bolt cutter, 4" Acme, m. d.  
Boring mill, 36" Gisholt, 1 head.  
Boring mill, 42" Cincinnati, 2 heads.  
Drill, 24" Cincinnati upright, b. g.  
Drill, 6" Niles universal, m. d.  
Drill, 3' Carlton plain, m. d. or b. d.  
Grinder, No. 3 Cincinnati cylindrical, 12x50.  
Lathe, 16"x 6' New Monarch, q. c.  
Lathe, 16"x 6' LeBlond, l. c., t. a.  
Lathe, 18"x 6' l. c., rebuilt.  
Lathe, 18"x16' LeBlond, 6x14 gap, q. c.  
Lathe, 24"x12' Bradford, q. c.  
Lathe, 24"x12' LeBlond, q. c.  
Lathe, 27"x16' LeBlond, q. c.  
Lathe, 25"x12' National semi-quick change.  
Lathe, 28" & 34" Gisholt turrets.  
Milling machine, No. 2 LeBlond, belt feeds.  
Milling machine, No. 4G LeBlond, plain, m. d.  
Planer, 62"x62"x14' Cincinnati, 4 heads, m. d.  
Planer, 36"x38"x16' Gray, 3 heads.  
Planer, 32"x32"x16' Gray, 2 heads.  
Shaper, 16", American plain.  
Shaper, 20" Kelly plain.  
Shaper, 16" Cincinnati, b. g.  
Shaper, 20", Steptoe, b. g., (new and used).  
Shaper, 16"—28" new Queen City, b. g.  
Shaper, 24" Cincinnati, b. g.  
Turret lathe, 24"x24" J. & L., chucking type.  
Turret lathe, 3x36 J. & L., chucking type.

If what you want is not listed herein, send us your specifications, as we have other items in stock.

## NEW 3 PHASE MOTORS CHEAP. 3 H. P. \$54.50; 5 H. P. \$65.50

### LATHES

- 12"x 5' Cleveland, geared head.
- 14"x 6' Carroll-Jamieson, new, q. c.
- 14"x 6' Hamilton, grd. hd. motor dr.
- 14"x 6' Monarch, quick change.
- 14"x 8' Sidney, double back geared.
- 14"x 6' Hamilton, style B.
- 16"x 6' Monarch, motor drive.
- 16"x 8' Sidney, double back geared.
- 18"x10' American, quick change.
- 20"x 8' American, geared head.
- 20"x10' Hamilton, rapid production.
- 20"x10' Prentice, taper attachment.
- 22"x10' Greaves & Klusman.
- 24"x12' Bradford.
- 24"x24' Prentice, with raising block.
- 8x80" & 32x60" Fitchburg, L. & Swing.

### TURRET LATHES and SCREW MACHINES

- No. 4 DeLancey, 1 1/2" capacity.
- 1 1/2" capacity Smurr & Kamen.
- 1 1/2" Milholland.
- 2x24 and 3x36 J. & L.
- No. 1 Foster, 15/16" capacity, (2).
- Warner & Swasey No. 2.
- Warner & Swasey No. 4.
- No. 52 National Acme.

### SHAPERS

- 14" Niles, traveling head.
- 14" Steptoe, crank.
- 16" American tool room.
- 16" O. & S., b. grd., new, low price.
- 16" American back geared crank.
- 16" Cincinnati b. g., motor drive.
- 16" Barker back geared crank.
- 24" O. & S. back geared crank.

### PRESSES

- No. 10 and No. 15 Excelsior, foot.
- Nos. 5 and 6 Toledo, o. b. i.
- Nos. 3-A & 5-A Willard inclinable.
- Nos. 1 1/2, 2, 2 1/2 & 4 Robinson, new.
- Emco, bench, for radio parts.
- Perkins, dbl. housing, wt. 4,000 lbs.

### DRILLS and RADIALS

- 3' W. E. Gang plain.
- No. 1 Baush multiple.
- 4' Plain Universal Radial Drill Co.
- Electric Drills, Black & Decker.
- No. 4 Duntley electric.
- 22", 24", 26", 28" and 32", sliding hd.
- 6' Ceiling Drill.
- 4-spindle Reed sensitive.
- 44" Stover.
- Hole hog, 7-spindle.

### MILLING MACHINES

- No. 1 Kempsmith universal, new.
- No. 2 Kempsmith plain.
- No. 3 Kempsmith plain, new.
- No. 3 Cincinnati universal.
- No. 5-C Becker, vertical.
- No. 25 Becker plain, power feed.
- No. 2 H Brown & Sharpe plain.
- Oesterlein 24x7 1/2x15 plain.
- Briggs "A" high duty, 24x5" table.
- No. 7 Becker, Lincoln type.

### GRINDERS

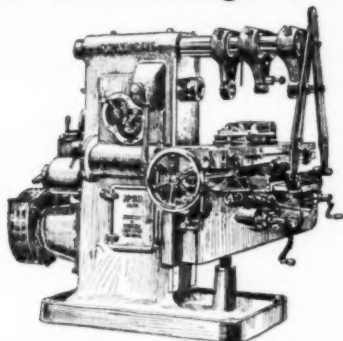
- Nos. 1 & 78 W. & M. surface.
- 6"x15" Fitchburg plain.
- 10"x36" Landis plain cylindrical.
- 12"x36" Cincinnati universal.
- 16"x42" Landis universal.
- 36" and 66" Yates plate.
- No. 70 Heald internal.
- No. 60 Heald cylinder.
- Schmitt cylinder grinder.
- No. 3 Ohio universal, tool and cut.
- J B X, W. & M. tool and cutter.
- No. 10 Besly 18" double disc.
- No. 20 Bryant, chucking.
- Capital internal, new, 2"x22" cap.

### MISCELLANEOUS

- Band saw, Clark, compound.
- Band saws, Napier 4"x4", 10"x10".
- Bending rolls, 7" for 1/2" plate.
- Blower, positive pressure, Leiman style "F".
- Boring mill, Colburn No. 3, tur. hd.
- Boring mill, 50" car wheel.
- Brake, 10", 18-gauge metal.
- Broaching mchs., 1 and 3 LaPointe.
- Compressors, 6x8, 8x8 and 9x8.
- Drawing tables, adjust., 42"x6" top.
- Gear cutter, No. 3-26 B. & S.
- Gear miller, Bilton No. 1.
- Hammer, No. 1 Pettingell.
- Hammer, 150 lb. Standard drop.
- Pipe machines, 2", 4" & 6".
- Pumps, Gould triplex, 6 1/2"x8".
- Punch & shear, 2 1/2"x10" throat.
- Riveting hammers, High Speed Nos. 2, 3, 4 & 5-A.
- Scale, 1500 lb. Toledo, dial type.
- Sceleroscope, Shore type C.
- Shear, 60" Peck, Stow & W., 18 ga.
- Shear, No. 362 Robinson.
- Shear, No. 20 Quickwork, 30" throat.
- Shear, circular, Pettingell, 60" thrt.
- Tapping machine, Acme 6-spindle.
- Threading mche., W. & P. 2-spindle.

**THE OSBORNE & SEXTON**  
**MACHINERY** Dept. H **COMPANY**  
**COLUMBUS** **OHIO**

## Factory Rebuilt Milwaukee Milling Machines



We have left a few of these excellent investments in the styles listed below. Every machine has been completely disassembled, re-scraped, and new parts put in wherever necessary. A K & T rebuilt is thoroughly tested and carries the same accuracy guarantee as a new machine. The demand exceeds the supply. Better write at once.

### MACHINES AVAILABLE

No. 2A Manufacturing	No. 4B Plain
No. 2B Plain	No. 2B Vertical
No. 3B Plain	No. 3B Vertical
No. 3B Universal	

*SUBJECT TO PRIOR SALE*

Address: Rebuilding Department

MILWAUKEE MILLING MACHINES  
**KEARNEY & TRECKER**  
CORPORATION

5926 National Ave.,

Milwaukee, Wisconsin

# New & Guaranteed Rebuilt Machine Tools

*At Prices to Net You a Worth While Saving*

## MILLING MACHINES

- 1-Becker No. 7 duplex.
- 2-Milwaukee No. 2-B univ.
- 3-Hendey No. 1 universal.
- 3-Cincinnati Nos. 1 $\frac{1}{2}$  & 2 Universal.
- 7-B. & S. Nos. 3A & 2 Universal.
- 4-Briggs "B" plain miller.
- 2-Rockford No. 1 $\frac{1}{2}$  No. 2.
- 4-Cinti. Nos. 2, 3 & 4 pl., cone dr.
- 1-B. & S. Nos. 2, 2B, 3B, 4 plain.
- 1-B. & S. No. 13-B plain.
- 1-Milwaukee No. 1 $\frac{1}{2}$ B vert.
- 2-Taylor & Fenn vertical.
- 12-Becker Nos. 3H, 4B, AB, 5C, C vertical.
- 9-P. & W. 4 $\frac{1}{2}$ x12, 6x48, 6x80 thread.
- 4-Lees Bradner Nos. 4, 6 thread.
- 25-P. & W. No. 5 auto.
- 30-P. & W. No. 4 spline.

## GEAR CUTTERS

- 5-Barber-Colman No. 12.
- 7-B. & S. 3x36, 3x26, 4x36.
- 3-G. & E. No. 18-H.
- 2-G. & E. No. 36-ST, 3 and 4 spindle gear roughers.
- 1-G. & E. 34" comb. spur & bevel gear cutters.

- 20-Fellows Nos. 6, 61, 615.
- 20-Gleason bevel, 6", 11", 18".
- 1-Gleason 15" spiral rougher.
- 1-Lees Bradner No. 2.

## BORING MILLS

- 1-Bullard 24" rapid prod.
- 1-Cleveland No. 1 horizontal.
- 1-Colburn 54" 2 swivel heads.
- 1-Ridgeway 84" vertical, 2 heads..

## SCREW MACHINES—Automatic

- 16-B. & S. Nos. 0, 2, 2G full auto.
- 14-Gridley 4-spindle. 8", 1 $\frac{1}{2}$ ", 1 $\frac{1}{4}$ ", 7/16", 2 $\frac{1}{2}$ ", 2 $\frac{1}{2}$ ".
- 2-Gridley 4 $\frac{1}{2}$ ", 3 $\frac{1}{2}$ " s. s.
- 3-Cleveland 8 $\frac{1}{2}$ ", 8", 1 $\frac{1}{2}$ ", 2", 2 $\frac{1}{2}$ ", 7 $\frac{1}{2}$ " "A".
- 1-Cleveland 8-1 $\frac{1}{2}$ ", 1 $\frac{1}{2}$ ", 1 $\frac{1}{4}$ " "B".
- 1-New Britain 1 $\frac{1}{2}$ x7 bar.
- 8-New Britain No. 24.
- 2-National Acme Nos. 52, 54.

## DRILLS—Multiple Spindle

- 2-Baush No. 3, 21-spindle.
- 2-Baush No. 2, 24-spindle.
- 1-Moline No. 5-D, 6-spindle.
- 1-Foote-Burt No. 17, 6-spindle.
- 13-P. & W. Nos. 3, 11, 12, 13.

## DRILLS—Upright and Radial

- 2-Colburn Nos. 2 and 4.
- 1-P. & W. No. 1 gun barrel.
- 2-New Turner No. 3 vertical.
- 6-Baker No. 310 and 314.
- 6-Cincinnati 24" sliding head.
- 1-Baush 6" radial.
- 1-Niles-Bement-Pond 96" Ridge-way, m. d. pl. rad.

## GRINDERS

- 1-Blanchard No. 10, m. d.
- 1-Queen City 14x72 plain.
- 7-Norton 6x32, 10x36, 18x96.
- 4-B. & S. No. 11, 10 plain.
- 4-Cincinnati No. 2, 12x36.
- 1-Springfield 12x12x48 vertical.
- 2-B. & S. No. 2 surface.
- 1-Persons & Arter 12" surface.
- 1-Landis 14x48 crank.
- 1-Fitchburg 12x54.
- 11-Bryant No. 20 chucking.
- 2-Bryant No. 15, dbl. spindle.
- 25-Heald Nos. 65, 60 and 70.
- 1-Van Norman No. 24.
- 2-Gidding & L. No. 12 teromatics.

## LATHES

- 4-Seneca Falls 12x6, q. c. g.
- 3-Davis 12"x5", q. c. g.
- 5-American 14x6, 16x8, s. p. d.
- 10-New South Bend 15x5, 18x8 gap.
- 3-Mueller 18x8, q. c. g.
- 1-American 20x10 s. p. d.
- 2-LeBlond 21x12 automobile.
- 1-LeBlond No. 6 multi-cut.
- 3-LeBlond 26x10 duplex crank.
- 1-Bridgeford 26x12", q. c. g.
- 1-Greaves-Klusman 28x10.
- 1-Johnson 30x12, motor drive.
- 1-Bridgeford 32x26", geared head., s. p. d. or m. d.
- 1-Bridgeford 48x60", hvy. duty, grd. hd., dbl. carriage, arr. for m. d.
- 2-LoSwing 3 $\frac{1}{2}$ x84, 2 car. New Star Lathes, all sizes, with all att.

## PLANERS

- 7-Putnam 26x26x 8', 2 heads.
- 1-Whitcomb 30x30x8', 1 head.
- 1-Gray 38x38x20", 3 heads.
- 1-Putnam 48x48x12", 3 heads.

## SHAPERS AND SLOTTERS

- 2-Stockbridge 16", 24".
- 2-Smith & Mills 16", 20".

25—HENDEY 12"x5' and 6' Q. C. G. Lathes  
6—CINCINNATI 24" sliding head Drill Presses  
5—BRIDGEFORD 42"x35' geared head Lathes

**MOREY AND CO., INC.** 408 Broome St., NEW YORK, N. Y.

# FOR SALE BY Cincinnati Automatic Machine Co.

Cincinnati, Ohio

## ENGINE LATHES

- 9"x12" Porter Cable Lathe.
- 13"x 6' Willard 3-step cone D. B. G. Lathe.
- 15"x 6' Champion 3-step cone D. B. G. Lathe.
- 15"x 6' Greaves-Klusman S. B. G. Semi-Q. C. G. Lathe.
- 16"x 6' Greaves-Klusman 4-step cone S. B. G. Semi-Q. C. G.
- 16"x 6' Cincinnati D. B. G., Q. C. G. Lathe.
- 16"x 8' Greaves-Klusman S. B. G. Semi-Q. C. G. Lathe.
- 16"x 8' American S. B. G. 5-step cone Q. C. G. Lathe.
- 16"x10' Bradford S. B. G. 3-step cone.
- 17"x 8' National D. B. G., Q. C. G. Lathe.
- 18"x 8' LeBlond 5-step cone S. B. G. Lathe.
- 18"x 8' L. & S. Q. C., G. B. Lathe.
- 20"x 9' Chard D. B. G. 3-step cone Q. C. Lathe.
- 30"x12' Greaves-Klusman D. B. G., Q. C. G. Lathe.

## TURRET LATHES

- 28" Gisholt Turret Lathe, 3-step cone.
- 24" Gisholt Std. Turret Lathe, 2-step cone.
- No. 2 Warner & Swasey Turret Lathe, bar equipment.
- 24"x26" Acme Flat Turret Lathe, cone head type, with bar equipment.
- 34"x36" Acme Flat Turret Lathe, bar or chucking equipment.

## AUTOMATIC SCREW MACHINES

- 4" Cincinnati 5 Spindle Automatic Screw Machine.
- 8" Cleveland Single Spindle Automatic Screw Machine.
- 24" Cleveland Automatic Screw Machine.
- No. 52—4" National Acme 4 Spindle Automatic Screw Machine.
- 44" Gridley Single Spindle Automatic Screw Machine, arr. motor drive.

## PLANERS

- |                                     |                                     |
|-------------------------------------|-------------------------------------|
| 24x24x 6' Cincinnati Planer, 1 hd.  | 48x48x14' Cincinnati Planer, 3 hds. |
| 30x30x 8' Ohio Planer, 1 head.      | 48x48x28' Cincinnati Planer, 2 hds. |
| 36x36x10' Ohio Planer, 2 heads.     | 60x60x12' Cincinnati Planer, 4 hds. |
| 42x36x21' Cincinnati Planer, 4 hds. | 60x48x16' Cincinnati Semi-HYPRO     |
| 56x42x12' Cincinnati Planer, 3 hds. | Planer, 4 heads.                    |
| 56x42x24' Cincinnati Planer, 4 hds. |                                     |

## GRINDERS

- |                                    |                                   |
|------------------------------------|-----------------------------------|
| 6x32" Norton Plain Grinder.        | No. 18 Bryant Chucking Grinder.   |
| 7x72" No. 16 B. & S. Pl. Grinder.  | No. 75 Heald Internal Grinder.    |
| 8x30" Modern Tool Co. Pl. Grinder. | No. 15 Bryant Internal Grinder.   |
| 10x40" B. & S. Plain Grinder.      | No. 2 Oakley Univ. Tool & Cutter. |

## MILLING MACHINES

- |                                |                                      |
|--------------------------------|--------------------------------------|
| No. 6 Whitney Hand Miller.     | No. 1 Cincinnati cone type Plain.    |
| No. 80 Brown & Sharpe Plain.   | No. 14 Cincinnati Plain cone driven. |
| No. 14 American Plain.         | No. 2 Cincinnati Plain cone driven.  |
| No. 8 Steptoe Milling Machine. | No. 3 Cincinnati Vertical.           |

## GEAR CUTTERS

- |                                |                            |
|--------------------------------|----------------------------|
| 36" B. & S. Auto. Gear Cutter. | No. 6 Fellows Gear Shaper. |
|--------------------------------|----------------------------|

## DRILLING MACHINES

- |                                    |                          |
|------------------------------------|--------------------------|
| 3-spdl. National High Speed Drill. | 3' Mueller Radial Drill. |
| 24" Wiegell Drill, D. B. G.        |                          |

## MISCELLANEOUS

- |                                   |                               |
|-----------------------------------|-------------------------------|
| Webster & Perks Nut Tapper, 3-sp. | Brown & Sharpe Screw Slotter. |
| P. & W. Relieving Mche. and c. s. | No. 3 Marking Machine.        |
| Arthur Colton Filing Machine.     | Etchograph and Transformer.   |
| Universal Graduating Machine.     |                               |

# Bath's Guarantee C

## Boring Mills—Vertical

- 42" Bullard 2 swivel heads.
- 42" King, 2 swivel heads, rapid traverse.
- 44" Baush, 2 swivel heads.
- 42", 48" and 54" Colburn boring mills.
- 72" Pond, 2 swivel heads, heavy.

## Boring Mills—Horizontal

- 3" bar Binsse, table type.
- 3½" bar Rochester, floor type.
- 3½" bar Landis, floor type.
- 5" bar Beaman & Smith, floor type.
- 4" bar Morton floor type boring, drilling and slotting machine.

## Drills

- 4-spindle 20" Barnes.
- 4-spindle Moline rail drill, 1½" capacity.
- 3" Prentice radial.
- No. 1, 8" wall radial.
- 20" Barnes, sliding head.
- 24" Cincinnati, sliding head, friction back gears.
- 28" Cincinnati, sliding head.
- 30" Aurora, sliding head.
- 32" Cincinnati, with tapping attachment.
- 24" No. 25 Foote-Burt, with compound table.

## Forging Machines and Bulldozers

- 1¼", 1½", 2½" and 3" Ajax Upsetters.
- ¾", 1¼" and 1½" Acme steel bed Upsetters.
- 4 & 5 Williams & White Bulldozers.
- 250-ton Mesta Steam Hydraulic, 85%.

## Grinders

- 84" Diamond surfacer.
- 18x96" Norton plain.
- 17x36" Landis universal.
- No. 2 Brown & Sharpe Surface Grinder.
- No. 2 Norton universal tool and cutter.
- No. 20 Safety electric floor grinder, 10 HP motor, 32"x4" wheels.
- No. 190 Wells universal tool and cutter.
- Various electric floor grinders and grinding stands.

## Hydraulic Equipment

- 175-ton R. D. Wood 4-column Flanging Press.
- Morgan Hydraulic Riveter, 8' 6" gap.
- Wood and Bement-Miles Hydraulic Riveters, 10' 6" gap.

## Lathes

- 14" to 18"x6'-9" beds, tool room.
- 30"x14" Boye & Emmes, double back geared.
- 36"x14" Schumacher & Boye, triple geared.
- 48"x26" Bridgeford, grd. hd., t. a.
- 48"—60"x34" Houston, Stanwood & Gamble, grd. hd., mtr. dr.

**CYRIL J. BATH & CO., E. 70th**



# Cleveland Stock

## Tumbling Barrels

Several sets 18"x48" steel lined, square, with roller bearings and exhaust.

## Milling Machines

Style "B" Gooley & Edlund, (2).  
20"x7½"x18" Oesterlein plain, belt drive.  
No. 1 Rockford plain, back geared.  
No. 2-B heavy Brown & Sharpe plain.  
No. 3 Brown & Sharpe plain.  
No. 3 Hendey, geared head, plain.  
No. 4 Cincinnati high power miller.  
Becker miller, model "C", table 14"x54".

## Planers

22"x24"x57" Fitchburg, single head.  
30"x30"x8' Gray, single head.  
48"x48"x18' Pond, 4 heads, heavy duty.  
72"x72"x16' Betts, four heads.

## Punches and Shears

No. 4 Doelger & Kirsten alligator shear, 4¾" cap., 30" blades.  
84" throat, Long & Allstatter, capacity about ¾" thru ¾".  
Kling Bros. horn press, 60" horn, flywheel 50" dia. 6½" face.  
48" throat No. 4 Southwark, capacity 2"x1¼".  
No. 6 Quickwork rotary shear, capacity up to 1¼" plate.  
36" throat Lennox rotary shear, capacity about ½" plate.  
15" throat No. 14 Williams & White.  
No. 4-R United Engineering alligator shear, 12" blades, 3" cap.  
No. 18 Carlin alligator shear, 2¾" capacity, 23" blades.  
76" Multiple punch, shear or press, ¾" capacity.  
4" Capacity Loyd-Booth cam driven alligator shear.

## Turret Lathes and Screw Machines

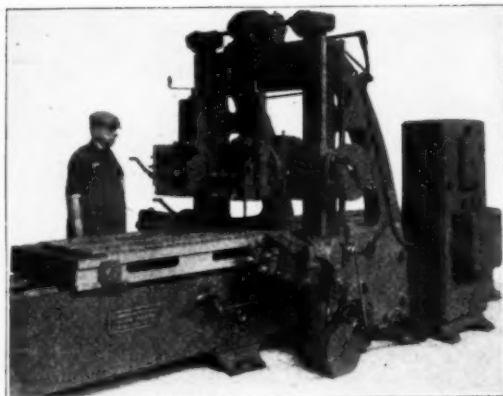
3"x36" Jones & Lamson.  
18" Libby, bar and chucking equipment.  
No. 4 Bardons & Oliver.

## MISCELLANEOUS

Acetylene Generator.  
Blower, No. 4 Root, motor drive.  
Blowers, Nos. 1 & 2 Buffalo Forge.  
Band-saw, No. 8 Marvel metal.  
Bolt cutter, Acme, 1" belt.  
Chain Hoists, ½, 1, 1½, 4 & 6 ton.  
Cold Saw, No. 4 Cochrane-Bly.  
Cold Saw, 48" Newton.  
Filing machine, Cochrane-Bly.  
Gear Cutter, 36" Gould & E.  
Grinder, No. 116 Cochrane-Bly.

Hammer, 100 lb. Bradley helve.  
Pipe Machine, 4" Jarecki.  
Press, No. 66 Consolidated, 4" str.  
Press, 30 ton Lucas forcing.  
Pyrometer, Brown.  
Shaper, 12" Springfield crank.  
Shaper, 24" Rockford.  
Slotter, 48" Niles-Bement-Pond, motor drive.  
Slotter, 10" Newton.

**Machinery Av., N. E., Cleveland, O.**



## Planers

Niles-Bement-Pond heavy types, with complete electric reversing drive and four heads, new or slightly used, at bargain prices.

36"x36"x14'

36"x36"x16' NEW

36"x36"x26' NEW

42"x42"x26'

42"x42"x30'

48"x48"x16'

50"x36"x22' heavy widened type.

**LATHE**, Niles-Bement-Pond **NEW** 36"x16', triple geared.

**MILLERS**, No. 3 Heavy and No. 2 Heavy Brown & Sharpe, motor drive.

**GEAR CUTTERS**, two No. 4 Brown & Sharpe.

*Specifications, prices, photographs on request*

**A. F. STRAFER,**

**30 Church St., NEW YORK**

# Once Again!

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## Look Over Our February Ads CAREFULLY!

Each tool is exactly  
as represented and good values  
for the money asked.

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Save Money.

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**A. R. Marsh Machinery Company**

4900 West 73rd Street,

Cleveland, Ohio

# QUALITY Rebuilt and used

## Milling Machines

No. 1½ Rockford universal, cone pulley, complete.  
Nos. 1-B; 2 and 3 LeBlond univ., cone pulley, complete.  
No. 3 Kempsmith universal, cone pulley, complete.  
No. 5 LeBlond plain, single pulley.  
No. 4 Cincinnati plain, cone pulley.  
No. 3B-heavy Brown & Sharpe plain, single pulley.  
No. 3 B. & S. plain, single pulley.  
No. 3 heavy OHIO plain, cone pulley, power quick return

No. 3 Cincinnati plain, cone pulley.  
No. 3 Kempsmith plain, cone pulley.  
No. 2 Cincinnati plain, cone pulley.  
No. 1½ Cincinnati plain, cone pulley.  
No. 0 Cincinnati plain, cone pulley.  
No. 1½ B MILWAUKEE vertical, motor drive.  
No. 22 Garvin vertical, cone pulley.  
No. 3 Brown & Sharpe vertical, single pulley, power quick return.  
No. 6 Whitney hand mill.  
No. 2 Bristol ball bearing hand mill.  
No. 7 Becker Lincoln Type Mfg.

## Radials and Upright Drills

5¹ American triple geared plain radial, gear box drive.  
4¹ Cisco (Mueller) plain radial, gear box drive.  
3¹ Cisco (Mueller) pl. radial gear box dr.  
2¹ American triple geared plain, radial, gear box.  
3¹ American ball bearing sensitive radial, tapping.  
No. 1 and No. 3 W. F. & John Barnes horizontal radials.  
36¹ Cincinnati-Bickford upright.  
32¹ Reed-Prentice upright gear box, also tapping.

28¹ Cincinnati-Bickford upright gear box, also tapping.  
26¹ Reed-Prentice upright, gear box.  
25¹ W. F. & John Barnes upright.  
24¹ Aurora upright.  
24¹ Cincinnati-Bickford upright, g. b.  
22¹ Aurora upright, tapping attachment.  
Henry & Wright 3-spdl ball bearing.  
26¹ W. F. & John Barnes 3-spindle gang drill.  
No. 0 Fox multiple, with 6 spindles, No. 1 Morse taper.  
No. 12 MINSTER Jr. heavy duty drill, tapping attachment.

## Engine and Turret Lathes

30¹x36¹ American Tool Works, q. c.  
30¹x20¹ Lodge & Davis standard chg.  
30¹x17¹ Houston, Stanwood & Gamble heavy duty, quick change.  
30¹x12¹ LeBlond heavy duty, q. c.  
24¹x16¹ Walcott heavy duty, q. c.  
24¹x8¹ Walcott heavy duty, q. c.  
24¹x14¹ Lodge & Shipley, q. c.  
24¹x10¹ Boye & Emmes, quick change.  
21¹x10¹ LeBlond heavy duty, quick chg.  
20¹x12¹ Hendey, yoke head, quick chg., with taper.  
20¹x12¹ Lodge & Shipley, q. c.  
18¹x8¹ Reed-Prentice, quick change, single pulley, geared head.

18¹x8¹ Rockford, q. c.  
18¹x8¹ Lodge & Shipley, q. c.  
16¹x8¹ Hendey, yoke head, quick chg., with taper.  
16¹x8¹ R. K. LeBlond, q. c.  
16¹x6¹ Lodge & Shipley, q. c.  
21¹ & 24¹ Gisholt late type turret lathes.  
3¹x36¹ Jones & Lamson flat turret lathes, geared head.  
2½¹x26¹ Pratt & W. flat turret lathe, geared head.  
Nos. 2, 4 & 6 Warner & S. turret lathes.  
Nos. 4 & 7 Bardons & Oliver tur. lathes.  
Nos. 2, 4 & 6 Foster turret lathes.  
No. 4 Brown & S. wire feed screw mch.

# EASTERN MACHINERY CO

We also Buy machinery at h

# Guaranteed Machine Tools

## Shapers and Planers

26<sup>8</sup> Kelly heavy duty b. g. crk. shaper.  
24<sup>8</sup> Smith & Mills, b. g. crank.  
20<sup>8</sup> Cincinnati heavy duty b. g. crank.  
16<sup>8</sup> Cincinnati heavy b. g. crank.

24<sup>8</sup>x24<sup>8</sup>x8<sup>1</sup> Gray planer, 1 head.  
38<sup>8</sup>x38<sup>8</sup>x18<sup>1</sup> Niles Tool Works planer,  
2 heads.  
36<sup>8</sup>x36<sup>8</sup>x14<sup>1</sup> American, 2 heads.

## Gear Machinery and Grinders

No. 12 Barber-Colman gear hobbers.  
serial over 1800.  
No. 18-H Gould & Eberhardt high duty  
gear hobbers.  
60<sup>8</sup> Newark auto. spur gear.  
No. 4-48<sup>8</sup> B. & S. auto. spur gear cutter.  
No. 3-26<sup>8</sup> B. & S. auto. spur.  
No. 12 B. & S. auto. spur and bevel cap.  
12<sup>8</sup> gear.  
No. 10 Bilton gear hobber, cap. 10<sup>8</sup> gear.  
No. 70 Heald internal grinder, late type.  
No. 60 Heald cylinder grinder, late type.

No. 120 Gardner double disc.  
No. 2-18<sup>8</sup> Gardner disc grinder.  
Walker single stroke surface grinder,  
magnetic chuck.  
Wilmarth & Morman hand feed surface  
grinder.  
6<sup>8</sup>x32<sup>8</sup> and 10x36<sup>8</sup> Norton plain.  
8<sup>8</sup>x30<sup>8</sup> Modern pl. self-contained grinder.  
No. 2, 12<sup>8</sup>x36<sup>8</sup> Cincinnati plain grinder.  
Nos. 1 and 3 Brown & S. univ. grinder.  
No. 1 W. & M. univ. tool & cutter.  
No. 2 OHIO univ. tool & cutter grinder.

## Miscellaneous

Air Compressor, 10<sup>8</sup>x10<sup>8</sup> Ingersoll-Rand, E. R. I., complete with receiver.  
Arbor Press, No. 5 Greenerd.  
Arbor Press, No. 4 Atlas.  
Bending Roll, power, 7<sup>1</sup> Niagara, capacity 1/4<sup>8</sup>.  
Bolt Cutters, 1<sup>8</sup>, and 3<sup>8</sup> Acme, class A.  
Bolt Cutters, double, 2<sup>8</sup> Acme Class A.  
Bolt Threading Machine, 1<sup>8</sup> Landis, with lead screw attachment.  
Boring Mill, 24<sup>8</sup> Bullard vertical, rapid production type.  
Boring Mill, 36<sup>8</sup> Gisholt vert. turret head, power rapid traverse, motor drive, 98% new.  
Broaching Machine, No. 2 J. N. LaPointe.  
Broaching Machine, No. 3A LaPointe of Hudson.  
Hammers, 40 and 60-lbs. Bradley rubber cushioned helve.  
Press, power, P No. 4 Ferracute.  
Press, power, C No. 3 Ferracute.  
Presses, power, Nos. 6 and 8 Chas. Leffler o. b. i.  
Presses, power, 15 and 30 ton Lucas forcing.  
Shear, power, 42<sup>8</sup> No. 242 Niagara, capacity 14 gauge.  
Shear, power gap, 62<sup>8</sup> No. 562 Niagara, capacity 16 gauge.  
Shears, power, 42<sup>8</sup> No. 142 and 52<sup>8</sup> No. 152 Niagara, cap. 18 gauge.  
Shear, power, 8<sup>1</sup> and 10<sup>1</sup> Geo. A. Ohl capacity 3/16<sup>8</sup>.  
Tapping Machines, Garvin automatic, Nos. 1, 2 and 2-B. G.  
Welder, electric spot, Winfield, cap. 2 pieces 3/16<sup>8</sup>.

*And many others;—Send for our new stock list.*

8 E. Pearl St., CINCINNATI, O.  
What have you to Sell?

# ReMANUFACTURED - (ORIGINATED BY US) - MACHINE TOOLS

REG. U. S. PAT. OFF.

Largest stock of high grade machine tools in America. All principal makes and models. Every one guaranteed. Save 25 to 60 per cent on prices.

This is only a partial list. Write for price on any tool you need, whether listed below or not.

## LATHES

- 1-36"x64"x18" Johnston.
- 1-51"x20" LeBlond.
- 1-44"x16" Putnam.
- 4-36"x30" Pittsburgh Geared Hd.
- 2-30"x34"x12 L. & S. Sel. Hd.
- 1-28"x16" Bridgeford.
- 21-28"x10" Canada.
- 12-25"x12" LeBlond.
- 1-24"x12" Reed Prentice Grd. Hd.
- 9-24"x11" Cisco.
- 10-21"x10" LeBlond.
- 1-20"x16" American Geared Head.
- 2-20"x 8" LeBlond.
- 3-16"x 8" American Gd. Hd.
- 1-16"x 8" Monarch.
- 6-16"x 6" Walcott.
- 2-14"x 8" Carroll-Jamieson.
- 2-14"x 6" Carroll-Jamieson.

## MILLERS

- 1-No. 6 Becker Vertical.
- 1-No. 5-C Becker Vertical.
- 6-No. 3 Brown & Sharpe Vert.
- 1-No. 2B Milwaukee Vertical.
- 2-No. 4-B Becker Vertical.
- 2-No. 4 LeBlond Plain.
- 1-No. 4 Cincinnati Plain.
- 1-No. 3-B Hvy. Brown & Sharpe.
- 6-No. 3 Kempsmith Plain.
- 1-No. 2-B Hvy. Brown & Sharpe.
- 1-No. 2 Cincinnati Plain.
- 1-No. 2-B Milwaukee Universal.

## PLANERS

- 1-72"x56"x36" Cincinnati.
- 1-60"x48"x30" Hamilton.
- 3-36"x36"x18" Cincinnati.
- 1-36"x36"x12" Woodward & P.
- 1-36"x36"x12" Gray.
- 1-30"x30"x14" N. B. P.
- 1-30"x30"x 8" N. B. P.
- 1-24"x24" x 6" Hamilton.

## PRESSES

- 1-86-G Toledo Double Crank.
- 2-No. 56 Ferracut.
- 1-No. 163½ Toledo Toggle.
- 1-No. 3 Loshbough-Jordan.

## BORING MILLS—Vertical

- 5-72" Gisholt.
- 1-72" Cincinnati.
- 1-42" Colburn.
- 1-30" Bullard.
- 1-24" Bullard Rapid Production.

## BORING MILLS—Horizontal

- 1-No. 1½ Beaman & Smith.
- 1-No. 1½ Giddings & Lewis.
- 5-No. 1 Barrett.
- 6-2" Bar Rockford.

## DRILL PRESSES

- 1-No. 30 Natco.
- 1-No. 310 Baker.
- 1-No. 24 Foote-Burt.
- 1-24" Colburn.
- 1-22" Barnes all geared.
- 10-No. 1-K 8" Henry & Wright.

## SLAB MILLERS.

- 6-24"x24"x12" Ingersoll.
- 1-24"x24"x 8" Ingersoll.
- 1-24"x12"x20" Ingersoll.
- 1-32"x32"x12" Ingersoll.

## GRINDERS

- 4-22" P. & W. Vert. Surf.
- 1-20"x96" Landis.
- 3-14"x50" Norton.
- 3-10"x72" Norton.
- 2-10"x36" Norton.
- 6-6"x32" Norton.
- 1-No. 70 Heald.

*Our Guarantee: Your money back if you return a machine within thirty days, freight prepaid.*

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122

Cable Address "Remand"

# Peninsular Machinery Company

## Machinery Dealers

### DRILLING MACHINES

- 1-3-Spindle Henry & Wright Ball Bearing Sensitive, 12" over-hang, surface of table 40"x24".
- 1-23" Barnes Sliding Head Back Gear Power Feed Tapping Attachment, with compound table.
- 1-No. 3 Baush High Speed Multiple 20"x40" hor. hd., 10 spindles.
- 1-26" Kern Sliding Hd. Back Gear Power Fd. Tapping Attachment, cap. 24" hole, tapping capacity 24" pipe tap, (New).

### GRINDERS

- 2-No. 11 Lumsden Ball Bearing Cup Wheel for grinding lathes Tools, (New).
- 1-No. 190 Greenfield Univ. Cutter and reamer Grinder, 8"x16".
- 1-Cincinnati Cutter and Reamer.
- 1-No. 5 Oliver Motor Driven Twist Drill, capacity 1/2 to 24.
- 1-No. 12 Gardner Disc.
- 1-No. 23B Valley City Dbl. End Disc, 24" steel discs, bench press.

### LATHES

- 1-13"x 5' South Bend L.C.G. Eng.
- 4-13"x 6' Sebastian L.C.G. Engine.
- 1-16"x 8' Bradford L.C.G. Engine.
- 1-14"x 6' Carroll-J. Q.C.G. Engine.
- 1-14"x 6' Flather L.C.G. Engine.
- 2-21"x11' LeBlond Sgl. Pulley Dr. Quick Change Gear Engine.
- 2-13"x 6' Willard L.C.G. Engine.
- 3-14"x 6' Reed L.C.G. Engine.
- 1-14"x 6' Rockford L.C.G. Engine.
- 1-15"x 6' South Bend L.C.G., T.A.
- 1-14"x 6' American Q.C.G. Engine.
- 2-14"x 6' Prentice L. C. G. Engine.
- 1-14"x 8' LeBlond Q.C.G. Engine.
- 1-17"x 6' LeBlond Q. C. G. Engine.
- 1-34"x36" Lo-Swing.
- 1-17"x 6' LeBlond Cone Type Automobile, with sq. turret tool post.
- 1-18"x 6' LeBlond Stud.
- 1-19"x 8' LeBlond Heavy Duty Automobile, cone type.
- 1-17"x 8' LeBlond Automobile, cone type.
- 1-21"x10' LeBlond Automobile, cone type, square tur. tool post.
- 1-26"x10' LeBlond Heavy Duty Duplex Crankshaft.
- 1-21"x12' LeBlond Line Bearing Lathe, 3-tool tur., roller bk. rest.
- 1-21"x10' LeBlond Heavy Duty Automobile Lathe, 3 step cone, double friction back gears.
- 2-21"-24"x10' LeBlond Automobile Lathes, 3-step cone, dble. friction back gear, square turret tool post.
- 1-No. 9 LeBlond multi-cut lathe.

### MILLING MACHINES

- 1-Type A Briggs High duty, 16" fd.
- 1-32" Kempsmith (Lincoln Type), feed range 36"x54"x84.
- 1-No. 3H LeBlond Pl., feed range 34"x12"x20", with arbor and vise.
- 1-No. 0 Brown & Sharpe Plain.
- 3-Whitney Type Hand Millers.
- 1-No. 2 Brown & S. Univ. Miller.
- 2-No. 33 Kempsmith, single pulley drive, all-g geared, 36" dbl. fd.
- 1-No. 0 1/2 LeBlond Plain, with bk. gears.

### SHAPERS

- 4-No. 6 Fellows Geared Shapers.

### TURRETS, SCREW MACHINES

- 1-No. 2 Warner & Swasey Plain Head Screw Machine, automatic chuck, no wire feed.
- 1-1"x15" Pratt & Whitney Turret Screw Machine, with power feed to turret.
- 2-No. 3 Foster Friction Head Tur. Lathes, power feed to turret slide.
- 1-No. 2 Warner & Swasey Hollow Hex. Turret Lathe, automatic chuck and roller wire feed.
- 1-No. 6 B. & S. Tur. Screw Mche., roller w. fd. pwr. fd. to tur. slide.

### MISCELLANEOUS

- 2-12" Rochester Gear Tooth Round-ing Machines.
- 2-4" Hurlbut-Rogers Cutting-off Machines, capacity 1/2" to 4".
- 1-Napier Metal Band Saw, cap. 6".
- 1-No. 1 Gray Sheet Metal Cutter, 3/16" capacity, 34" throat.
- 1-18" Gleason Bevel Gear Gen'tor.
- 1-LaPointe Broaching Machine, capacity 1/2" square hole, screw 2" diameter, 48" long.
- 1-Bethel-Player Lapping Machine, 26" diameter plates.
- 1-No. 50 Connersville Positive Pressure Blower.
- 1-20" Silver Band Saw.

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# REAL BARGAINS—

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Every machine listed is on our floor fully guaranteed.  
If machines prove unsatisfactory, full purchase price  
will be returned, and freight will be pre paid.

## LATHES

- 2—24x16 Lodge & Shipley, q. c. g., with taper attachment, c. p. d.
- 3—22x12 Actual swing 24½", c. p. d., q. c. g., with taper att., like new.
- 1—16x8 Hendey, single pulley dr., also arranged for motor drive, quick change gears, fully equipped.
- 1—16x8 Creaves-Klusman, sgl. pulley drive, arranged for motor drive.
- 1—16x6 Reed, motor drive, with d. c. motor, loose change gears.
- 1—14x8 Hendey, tie bar head, c.p.d., taper attachment, and drawing-in collets, serial number over 23,000.
- 1—24x14 Reed Prentice, single pulley drive, geared hd., geared face plate drive, taper attachment, like new.

## SHAPERS

- 2—24" Gould & Eberhardt, back grd., arranged for motor drive, serial numbers over 11,000.
- 1—21" American back geared, c. p. d.
- 1—16 Kelly c. p. d., back geared.

## MILLING MACHINES

- 1—No. 4 Cincinnati plain, single pulley drive, very late model.
- 1—No. 3 LeBlond plain, heavy duty, arranged for motor drive.
- 1—No. 3 SG. Hendey, sgl. pulley dr.
- 1—No. 3B Milwaukee, double overhanging arm, arranged for motor dr.
- 1—No. 2 Cincinnati plain, c. p. d., power feed up and down.
- 3—No. 2 Milwaukee plain, c. p. d.
- 1—No. 3 Brown & Sharpe vertical, with rotary table, late model.
- 1—No. 2 Cincinnati universal miller with vertical attachment c. p. d.
- 2—No. 1½ Cincinnati universal millers, fully equipped with vertical att.
- 1—No. 2B Brown & Sharpe plain, sgl. pulley drive, vertical attachment.
- 2—No. 22 Garvin vertical, new.
- 1—No. 20 Garvin vertical, new.
- 1—No. 3 Cincinnati plain, c. p. d.

## BORING MILLS and RADIAL DRILLS

- 1—42" Bullard Boring Mill, 2 heads on cross rail, with 10 H. P., d. c. motor, push button control.
- 1—42" Bullard Boring Mill, cone pulley drive, 2 heads on cross rail.
- 1—36" Baugh Boring Mill, 2 heads on cross rail, motor drive.
- 1—21" Lucas horiz. Boring Mill, 2½" bar.
- 1—4" Cin.-Bickford Radial Dr like new
- 1—4" American Full Univ. Radial, serial number over 50,000, like new.
- 1—5" Bickford of Cincinnati full universal radial.
- 1—5" Prentice mtr. dr., with a.c. motor.
- 1—30" Roger, Boring Mill, a. p. d.

## MISCELLANEOUS

- 1—No. 2A Warner & S. turret lathe, with bar and chucking equipment.
- 2—No. 33 New Britain Automatic chucking machines.
- 3—2x24 Jones & L. flat turret lathes.
- 5—3x36 Jones & L. flat turret lathes.
- 3—2-spindle Jones & Lamson.
- 3—3¼" Gridley sgl. spdl. automatics.
- 3—5¼" Gridley sgl. spdl. automatics.
- 1—48x48x14 Woodward & Powell Planer, 4 heads on cross rail.
- 1—30x30x8, 2 heads on cross rail.
- 1—24x24x6 Cin., 1 hd. on cross rail.
- 1—14x50 Norton Cylindrical Grinder.
- 1—Billings & Spencer 800-lb. hammer, type B.
- 1—Excelior Tire Press, 225 t. pressure.
- 3—24" Cin.-Bickford sliding hd. drills.
- 1—36" Cincinnati-Bickford sliding hd. drill, with tapping attachment.
- 2—No. 1½ Bliss Toggle Presses.
- 1—No. 310 Baker heavy duty drill, with compound table.
- 1—4-spindle Sipp Drill Press.
- 1—2-sp. Leland Gifford high spd. drill.
- 1—No. 23 Foote-Burt Drill, single pulley drive.
- 1—No. 2 Brown & Sharpe Universal Grinder, fully equipped.

## Associated Machine Tool Co., Inc.

Main Office and Warehouse:

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Brooklyn, N. Y.

PHONE: SOUTH 0717



# REBUILT—Condition Guaranteed On a Money Back Basis

## LATHES

- |                                |                                    |
|--------------------------------|------------------------------------|
| 12"x 5' Davis, with chuck.     | 20"x 10' American, grd. hd., q. c. |
| 14"x 6' Whitcomb-Blaisdell.    | 22"x 10' Davis, d. b. g., q. c.    |
| 14"x 8' Fay & Scott, taper.    | 32"x 10' Pond pl. change, cheap.   |
| 18"x 8' Lodge & S., grd. head. | 34"x 10' Putnam, plain change.     |
| 20"x 8' Hamilton, dbl. b. g.   | 38"x 14' Fifield, heavy pattern.   |

## MILLING MACHINES

- |                                   |                                   |
|-----------------------------------|-----------------------------------|
| No. 3H LeBlond, pl. vert. attach. | No. 3 Cincinnati vert., high pwr. |
| No. 3 Kemp Smith pl., ex. cond.   | Nos. 3, 5 & 6 Becker verticals.   |
| No. 2B Brown & Sharpe hvy., pl.   | No. 8 Hendey hvy., Lincoln type.  |
| No. 25 Becker, plain, (3).        | No. 3½ Pratt & W. duplex.         |
| No. 20 Oesterlein, plain.         | No. 3 P. & W. die sinker.         |

## SHAPERS AND PLANERS

- |                               |                                  |
|-------------------------------|----------------------------------|
| 20" Rockford, b. g. shaper.   | 30"x 8' Ohio heavy planer.       |
| 20" Kelly b. g. shaper, New   | 36"x 15' Betts planer, 2 heads.  |
| 26"x 6' Pond planer, 1 head.  | 60"x 12' Niles planer, 2 heads.  |
| 30"x 10' Pond planer, 1 head. | 72"x 25' Bement, 3 heads, cheap. |

## DRILLS

- |                             |                                     |
|-----------------------------|-------------------------------------|
| 24" Milwaukee, b. g., New.  | 36" Cin.-Bickford radial, gear box. |
| 28" Hamilton, b. g.         | 36" Drees radial, plain.            |
| 36" Aurora, b. g.           | 60" Prentice radial, gear box.      |
| 24" Foote-Burt, heavy duty. | No. 2 Foote-Burt, 4-sp. gang drill. |

## PRESSES

- |                                 |                                     |
|---------------------------------|-------------------------------------|
| No. 32 Michigan solid back.     | No. 55 Adriance dbl. crank.         |
| No. 93 Consolidated solid back. | No. 204-A Toledo d. c. g., 2½" str. |

## BOLT AND PIPE THREADERS

- |                                    |                             |
|------------------------------------|-----------------------------|
| 1" Reliance bolt cutter, ex. cond. | 4" Saunders pipe machine.   |
| 2" Standard, arr. for motor drive. | 3½" & 4" Acme bolt cutters. |

## SCREW MACHINES

- |                                  |                                 |
|----------------------------------|---------------------------------|
| ¾"-7/8" Cleve. Auto. ser. 30000, | 1½" Kent Owen, grd. fr. head.   |
| dbl. cross slides, (5).          | No. 6 Foster, grd. fr. head.    |
| No. 1 Garvin hand, ¾" capacity.  | 2" Cleveland model A, ex. cond. |
| No. 3 Superior hand, 1-5/16".    | Several ¾" Cleveland and Hart-  |
| No. 4 Milholland, 1½".           | ford automatics, cheap.         |

## GRINDERS

- |                        |                                    |
|------------------------|------------------------------------|
| 6"x 32" Norton plain.  | 16"x 48" Landis, crankshaft.       |
| 14"x 72" Norton plain. | 29"x 96" Landis, crank.            |
| 16"x 96" Landis plain. | P. & W. vertical surface grinder.  |
| No. 85 Heald internal. | No. 3½ Van Norman auto. ball race. |

## MISCELLANEOUS

- |                                   |                                 |
|-----------------------------------|---------------------------------|
| Boring mill, 36" Niles, 2 heads.  | Riveter, ¾" Grant spinner.      |
| Boring mill, Binsse horizontal.   | Riveter, 3A High Speed Hammer.  |
| Hammer, 80 lb. Bradley helve.     | Slotter, 15" Dill.              |
| Keyseater, No. 0 Mitts & Merrill. | Shear, 40-C Williams-White bil- |
| Turret lathe, 21" & 24" Gisholt.  | let, 4¼" cap., with motor.      |
| Punch, No. 5 Long & Allstatter.   |                                 |

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<b>BORING MILLS:</b>	30" Bullard Vertical.....	\$275.
	36" American.....	350.
	42" Bullard Vertical.....	850.
	52" Niles, 2 heads.....	500.
	Niles Horizontal Boring, Drilling and Milling Machine, 5" dia. bar.	
<b>DRILLS:</b>	20" Champion B. G.....	\$ 90.
	24" Weigel B. G.....	350.
	24" Sibley B. G.....	
	36" Aurora.....	
	5' Prentice Radial.....	
<b>LATHES:</b>	18"x 8' 6" Prentice.....	
	18"x 8' Pratt & Whitney.....	
	24"x 10' Putnam t. a.....	
	24"x 12' Reed, h. a.....	
	24"x 12' New Haven.....	
	26"x 12' Bridgeford Heavy Duty.....	
	26"x 16' Prentice taper attachment.....	
	30"x 12' Niles-Bement-Pond.....	
	24"x 6' Gisholt Turret, 6¼" hol. spdl.....	\$850.
<b>MILLING MCHES.:</b>	No. 5 Brown & Sharpe Plain.....	\$675.
	No. 2M Cincinnati Plain.....	
<b>PUNCH &amp; SHEAR:</b>	Candey-Otto, hand power, ½"x ½".....	\$ 45.
	No. 5 Long & Allstatter d. e., 10" throats, cap. ⅞" thru ⅞".	
<b>GRINDERS:</b>	No. 1 Wilmarth & Morman Surface.....	
	No. 55 Heald Internal.....	
	No. 96 Ott Piston.....	
<b>SHAPERS:</b>	28" Ohio Double Geared.....	\$300.
<b>MISCELLANEOUS:</b>	Air Compressor, Chicago 12x14, cap. 275 cu. ft.	\$500.
	Blower, No. 2 Roots Rotary.....	
	Crane, Panama Portable, 2½-ton.....	60.
	Crane, 20-ton Browning Standard gauge 4-wheel Locomotive, 40' boom.....	
	Chain Block, 2-ton Harrington Triplex.....	
	Chain Block, 6-ton Yale & Towne Triplex.....	
	Gear Cutter, No. 6 Brown & Sharpe, cap. up to 72"x13".....	
	Motor, 30 h. p. Westinghouse, 3-60-220.....	
	Planer, Cincinnati 48"x48"x12'.....	
	Planer, Cincinnati 60"x60"x20'.....	
	Planer, Cincinnati 42"x36"x12', 2 heads.....	
	Planer, Detrick & H. Openside, 96"x72"x26'.....	
	Riveters, Allen Portable Pneumatic; Nutcracker and Hornshoe 8", 10", 12", 20" & 26" reach.....	
	Shear, Carlin Alligator, 2½" square.....	
	Shear, Carlin Alligator, 6" square.....	

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## Used Machines RARELY Available

BLISS No. 409 Toggle Drawing Press.  
 BLISS No. 1½, 3½-A, & 3½-C Toggles.  
 BLISS No. 4 Stiles Press, flywheel type.  
 BLISS No. 31 Overhanging Flywheel Press.  
 BLISS No. 61 Flywheel Press, wgt. 2000 lbs.  
 BLISS Stiles No. 3 Geared Press.  
 BLISS No. 73½ Straight Side Geared Press.  
 STOLL No. 68 Straight Side Geared Press.  
 TOLEDO No. 54 Geared Straight Side Press.  
 TOLEDO No. 96-F Double Crank Geared Press.  
 TOLEDO No. 55½ Straight Side Trimming Press.  
 TOLEDO No. 167 Toggle Drawing Press.  
 TOLEDO No. 164½ & 168¾ Toggle Presses.  
 TOLEDO No. 5 Inclinable, flywheel.  
 TOLEDO No. 666 Knuckle Joint 1000-ton Press.  
 CONSOLIDATED No. 56 Flywheel Trimming Press.  
 CONSOLIDATED No. 65 Geared Straight Side Press.  
 CONSOLIDATED No. 165 Flywheel Double Crank.  
 FERRACUTE EG-6 Geared Straight Side Press.  
 FERRACUTE D-66 Straight Side Reducing Press.  
 FERRACUTE No. DD-66 Cam Drawing Press.  
 V. & O. No. 104 Geared, 5" stroke.  
 NIAGARA No. 3 Inclinable Flywheel Press.  
 NIAGARA 31"x3" Slip Roll Forming Machine.  
 WILLIAMS & WHITE Nos. 2, 4, & 6 Bulldozers.  
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 HIGH SPEED Riveting Hammers, 3-A, 4-A, 5-A and 6-B.  
 NIAGARA No. 642 Power Shear, 42" Blades, 10 Ga.  
 CANTON No. 5 Alligator Shear, 3" cap.  
 TOLEDO 8' Power Squaring Shear, cap. ¼".  
 GEO. A. OHLS 10' & 8' Shears.  
 BELOIT 62" Bending Rolls, Cap. ⅛".  
 CLEVELAND Pyramid Type Bending Rolls 9'x⅝" Cap.  
 CLEVELAND Pyramid Type Bending Rolls 10'x¾" Cap.  
 BERTSCH Angle Bending Rolls, Cap. 2"x2"x¼".  
 WARNER & SWASEY No. 4 Turret Lathe.  
 CINCINNATI-ACME ¾"x36" Flat Turret Lathes.  
 SCHUMACHER & BOYE 24"x10" Lathe, Q. C. G.  
 WICKES 36"x20" Lathe, q. c. g., s. p., motor drive.  
 CLEVELAND ½" Model "B" & "C" Automatics.  
 GRIDLEY ¾" & ⅝" Multiple Spindle Automatics.  
 CLEVELAND Punch Style "G", 42" Thr., Cap. 2" Thru 1".  
 STOCKBRIDGE 20" Motor Driven Shaper.  
 AMERICAN 24" Shaper.  
 COLBURN D-3 Drill Press, cap. 3" steel.  
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 WINFIELD Spot Welder, capacity 2 pieces 3/16".

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48"x50' Amal. h. d. gun boring.  
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48"x16' Putnam h. d. production.  
36"x32' Bridgeford grd. hd., q. c. g.  
24"x12' American, q. c. g.  
20"x10' Davis, q. c. g.  
16"x10' Hendey, q. c. g., t. a.  
16"x 8' Springfield, s. q. c. g., t. a.

### PLANERS

60"x60"x18' Pond 2-heads.  
48"x48"x20' N. B. P. 2-heads.  
48"x48"x 8' Sellers 1-head.  
36"x36"x21' Gray 2-heads.  
30"x30"x20' Wood. & Powell 2-hds.  
22"x22"x 5' Gray, 1-head.

### SHAPERS

20' Smith & Mills.  
16' Stockbridge.  
14' Flather.

### MILLERS

24"x24"x12' Ingersoll horiz. slab.  
No. 3 Brown & Sharpe vertical.  
No. 5-C Becker vertical.  
No. 7-H Becker Lincoln type.  
No. 2½ Hendey Lincoln type.  
No. 2A Milwaukee plain.  
No. 3 Milwaukee plain.  
No. 20 Oesterlein plain.  
No. 25 Oesterlein universal.  
No. 29 Oesterlein universal.  
No. 1½ B. & S., universal.

### PUNCHES and SHEARS

48" Lewis Gate, 1¼" cap.  
18" Thr. Lewis P. & S., 1¼" cap.  
30" Thr. W. & W., P. & S., ¾" cap.  
24" Thr. Morgan, dbl. end, 1" cap.  
30" Thr. L. & A., dbl. end, ¾" cap.  
6' Lennox Rotary, ¾" cap.  
60" No. 10A Quickwork, 14 gauge.  
30" Bethlehem Rotary, ¼" cap.

### RADIAL DRILLS

30" American, t. a.  
36" Gang.  
6' Dreses.  
4' Dreses.

### GRINDERS

20"x54" Diamond wet surface.  
16"x68" Landis crankshaft.  
16"x66" Landis universal.  
16"x36" Landis universal.  
10"x48" Landis universal.  
12"x36" Fitchburg plain.

### ALLIGATOR SHEARS

No. 2 Carlin, cap. 5x5".  
No. 7 U. Engr., cap. 6x6".  
Alling Kneeland, cap. 2".  
U. Engr., cap. 1¼".  
Wharton McKnight, cap. 1".

### PRESSES

No. E-57 Ferr. dbl. grd., 2½" Str.  
No. 75½ Bliss straight side, 6" Str.  
No. 6 American Can Co. style-N, o.b.i.  
No. 256 Toledo dbl. crank, s. s., 4" str.  
No. 58 Toledo s. s. trimming.  
No. 5 Crosby Siles type, 2½" str.

### MISCELLANEOUS

12' L. & A. style-A Forming Press.  
750-1000-1500 ton Mesta Presses.  
365-Ton Camden Jogging Press.  
5-Ton Whiting El. Crane, 35' span.  
10-Ton Morgan El. Crane, 73' span.  
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6000 Lb. Chamb. D. F. Stm. Hammer.  
2500 Lb. Chamb. D. F. Stm. Hammer.  
2500 Lb. Bliss Board Drop Hammer.  
No. 4-B Wms. & White Bulldozer.  
3¼" Gridley Auto. screw machine.  
6" Bignall & Keeler Pipe Th. Mche.  
Nos. 2 & 3 Wood Tilt. Tur. Lathes.  
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## BORING MILLS

- No. 1 Cleveland Horizontal.
- 36" Bullard Vertical Turret Lathe, rapid production.
- 51" Bullard Standard Boring Mill, rapid production.
- 54" Bullard Rapid Production, two swivel heads.
- 61" Bullard Maxi-Mill.

## DRILL PRESSES

- 4-spindle Edlund, sens.
- 36" Snyder Sliding Head.
- 36" American Sens. Radial.
- 3 1/2" Cincinnati-Bickford Radial.
- 3 1/2" American Radial Drill.
- 6" Western Radial Drill.

## GEAR CUTTERS

- 36-S Gould & E. Gear Cutter.
- 36-H Gould & E. Gear Hobber.
- No. 12 Barber-C. Gear Hobber.
- 60" Brown & S. Gear Cutter.
- 72" Brown & S. Gear Cutter.
- 6" Gleason Bevel Gear Generator.
- 11" Gleason Bevel Gear Generator.

## LATHES

- 12x5 Hendey tool room.
- 14x6 LeBlond, q. c. g.
- 16x8 LeBlond, q. c. g., taper att.
- 20x10 American, cone drive.
- 20x10 American, geared head.
- 20x14 Hendey, taper attach.
- 24x12 American, cone hd., q. c. g.
- 36x10 American, geared head.
- 42x32 American, triple geared drive, 2 carriage motor.

## GRINDERS

- No. 2 Cincinnati Centerless.
- 10x50 Norton Cylindrical.
- 6x32 Norton.
- 20x144" Norton Cylindrical.
- 14" Pratt & Whitney Vert. surface.
- No. 1 LeBlond Cutter Grinder.
- 10x36 Thompson universal.
- No. 255 Heald Rotary, 12" chuck.
- No. 255 Heald Rotary, arranged for piston ring grinding.

## MILLING MACHINES

- 18" Cincinnati Automatic.
- No. 1B B. & S., sgl. pulley drive.
- No. 1 Cincinnati, cone drive.
- No. 3 Cincinnati univ. with div. hd., s.p.d.
- No. 4 Cincinnati univ., cone dr.
- No. 4 Cincinnati, pl., high pwr., sgl. pul. dr.
- 24x24x20" Ingersoll, fixed rail, 2 side heads, 1 head on rail.

## TURRET LATHES

- 1 1/2"x9" Cincinnati Acme.
- No. 4 Warner & Swasey.
- 6A Potter & Johnston.
- 24" Gisholt Lathe.

This is a partial list of our equipment. In addition to above list we have several hundred machines going through the process of rebuilding.

Let us send you one of our circulars describing our methods, listing our stock and picturing our plant.

Upon receipt of your address we will forward these circulars periodically.

**WAREHOUSE 888 East 70th St., CLEVELAND, O.**

# Prices To Force Immediate Sale

## BORING MILLS

42" Bullard New Era vertical turret.  
 36" Bullard New Era vertical turret.  
 24" Bullard New Era vertical turret.  
 61" Bullard Maxi-Mill.  
 72" Cincinnati, 2 swivel heads.  
 96" Cincinnati, 2 swivel heads.  
 62" Niles-Bement-Pond, 2 swivel hds.  
 53" Niles-Bement-Pond, 2 swivel hds.  
 The preceding machines are all latest type, with power rapid traverse.  
 16"—36" Niles extension, 2 swivel hds.  
 14"—20" Betts extension, 2 swivel hds.  
 42" Bullard, 2 swivel heads, s. p. belt or motor drive.  
 Lucas horiz. boring mill, 3" spindle.  
 Barrett cylinder boring mills, sizes 1 to 3.  
 Horizontal Boring Mills, No. 2 B. & S.; Niles-Bement-P. 4½" & 6½" spindles; Rochester 3½" spindle; Detrick & Harvey 5" spindle.

## RADIAL DRILLS

6" Cincinnati-Bickford full univ.  
 3" Cincinnati-Bickford plain.  
 4" Bickford plain, s. p. d.  
 5" Baush plain, s. p. d.  
 Full Universal Portable Radial.

## SHAPERS

16" American.  
 15" Potter & Johnston.  
 16", 20" and 24" Gould & Eberhardt.

## MILLING MACHINES

No. 4 LeBlond plain.  
 No. 3 Owen universal.  
 No. 3 Cincinnati universal.  
 No. 3 Brown & Sharpe plain.  
 Nos. 2 & 4 Cincinnati vertical.  
 O. Y. Brown & Sharpe plain.

## PLANERS

24"x24"x 6' Gray, single head.  
 24"x24"x 6' Pond, 2 heads.  
 42"x42"x12' Detrick & H. open-side.  
 96"x72"x24' Detrick & H. open-side.  
 60"x60"x20' Cincinnati.  
 30" Cleveland rotary planer.

## LATHES

60"x40' Fifeild, triple geared.  
 48"x18' Houston, Stanwood & Gamble, q. c. g., d. b. g.  
 30"x18' Houston, Stanwood & Gamble, q. c. g., d. b. g.  
 36"x30' Lodge & Shipley, selective head, m. d., q. c. g.  
 30"x20' Fitchburg.  
 36"x36' Bridgeford, grd. hd., q. c. g.  
 18"—36"x8' Fay & Scott gap lathe.

## TURRET LATHES AND SCREW MACHINES

No. 2-A Warner & Swasey, bar and chucking equipment.  
 No. 3-A Warner & Swasey.  
 26" Libby.  
 18" Libby.  
 No. 4 Warner & Swasey.  
 9/16" Gridley 4-spindle auto.  
 1¼" Gridley 4-spindle auto.  
 2¼" Gridley 4-spindle auto.  
 No. 0 B. & S., wire feed.  
 1¼" Cleveland Model B.  
 No. 56 National-Acme.

## GRINDERS

Norton pl., 3"x18", 6"x32", 10"x72".  
 Norton 20"x96" roll grinder.  
 Brown & Sharpe plain, Nos. 10, 11, 16 and 2 surface.  
 84"x24" Diamond open-side surface.  
 No. 16 Blanchard vert. surface, direct motor driven.  
 14" Pratt & Whitney vert. surface.  
 Nos. 50, 60, 65 Heald cylinder.  
 No. 70 Heald internal.

## POWER PRESSES, SHEARS, ETC.

Bliss Nos. 18, 19, 20 incl.; Nos. 74½, 75½, 78½ and 87 s. s.  
 No. 2 Niagara incl.  
 Nos. 54 and 58 Toledo s. s.  
 No. 3 Hillis & Jones dbl. end punch.  
 Lennox ½"x44" thr. rot. split shear.  
 No. 3 LaPointe broach.

*Let us know your Machine Tool Requirements.*

*Advise us what you have for sale.*

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## Machine Tools and Motors

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We are offering for sale a considerable amount of Machinery at a fraction of its original cost. All Machinery is in good condition and all Motors will be sold guaranteed and tested before shipment. Space will not permit listing everything we have for sale, which includes the following:

D. C. Motors— $\frac{1}{2}$  to 45 H. P.—220 Volts.

A. C. Motors— 3 to 50 H. P.—440 Volts, 3 Phase,  
25 or 60 Cycle.

360 Ton Hydraulic Press.

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Bridgeford Center Drive Axle Lathes.

42" Car Wheel Borer and Facing Machine.

Horizontal Punches (many sizes).

Vertical Punches (many sizes).

Plain and Radial Drill Presses.

Hydraulic Gap Riveters.

Heavy Double End Grinders.

10 Ton Milwaukee Crane—220 V., D. C. Motors,  
22'6" Span.

3 Ton P. & H. Crane—220 V., 3 P., 60 C. Motors,  
29' Span.

3 Ton P. & H. Crane—220 V., 3 P., 60 C. Motors,  
37' Span.

*All requests for detailed information, prices and location  
should be addressed to our agents—*

**Reliance Machinery Sales Co.**

1403 Brighton Road,

Pittsburgh, Pa.

# SIMMONS *New and Used* MACHINE TOOLS

ATTRACTIVE PRICES

MONEY BACK GUARANTEE

TESTED BEFORE SHIPMENT

## Boring Mills

- 2-24" Bullard New Eras.
- 3-24" Bullard R. P., side head.
- 1-34" Bertram (Niles) turret lathe.
- 1-36" Bullard rapid production.
- 2-42" Bullard, two heads.
- 1-51" Bullard vertical mill.
- 1-54" Colburn, two heads.
- 1-60" Cincinnati vert., rapid trav.
- 1-62" King vertical, two heads.
- 1-72" Niles, rapid traverse.
- 1-94" Pond spec. extra hvy, 2-hds.
- 1-EK-2 vertical turret lathe.
- 1-No. 0-B Bement-N. horiz. mill.
- 1-3" Bar Barnes horizontal mill.
- 1-No. 2 Rochester horizontal mill.
- 1-No. 2 Rockford horizontal mill.
- 1-No. 3 Barrett horiz. boring mill.
- 1-10-16" Niles vertical exten. mill.

## Millers

- 1-48"x33"x20" Ingersoll.
- 1-36"x36"x20" Ingersoll slab.
- 2-No. 5 Brown & Sharpe plain.
- 1-No. 4 Brown & Sharpe plain.
- 1-No. 4 Cincinnati high power pl.
- 1-No. 4-G LeBlond pl., all geared.
- 1-No. 3 Brown & Sharpe plain.
- 1-No. 3-B Hendey plain.
- 1-No. 2 Cleveland plain.
- 1-No. 1 Cincinnati plain.
- 1-No. 1 Brown & Sharpe univ.
- 1-No. 1-B Brown & Sharpe univ.
- 1-No. 2-A Garvin universal.
- 1-No. 2-B LeBlond universal.
- 1-No. 2-C Rockford universal.
- 1-No. 3-B Milwaukee universal.
- 1-No. 2-B Milwaukee vertical.
- 2-No. 3 Cincinnati vertical.
- 1-No. 4 Cincinnati vertical.
- 1-No. 3-E Lees-Bradner thread.

## Planers

- 1-72x72x18" D. & H. latest type, three heads, motor drive.
- 1-62x62x14" Cincinnati, 4 heads.
- 1-60x60x26" D. & H., 3 heads.
- 1-60x60x14" Powell heavy, 2 heads.
- 1-42x42x26" Pond, 4 heads.
- 1-36x36x20" Woodward-P. rev. mtr.
- 1-36x36x16" N.-B.-P., 4 heads.
- 1-36x36x10" N.-B.-P., rev. type mtr.
- 1-36x36x10" Am., 4 hds., mtr. drive.

## Planers-Continued

- 1-30x30x18" Cincinnati Tu-Sp. hvy.
- 1-24x24x12" American, 2 heads.
- 4-26"x26"x12" Pond, single head.
- 2-26x26x6" Gray spur geared.

## Drills

- 1-3" Bickford plain radial.
- 1-3" Fosdick radial.
- 1-24" Cincinnati-Bickford radial.
- 1-5" Niles-Bement-P., semi-univ.
- 1-6" American plain radial.
- 1-6" American triple geared plain.
- 1-6" N.-B.-P. universal, tap. att.
- 1-72" Bickford univ., tap. att.
- 1-8-spindle Bausch drill.
- 1-No. 3 Bausch High Speed multi-spindle drill.
- 4-No. 2-D Moline 4, 6 or 8-spindles.
- 1-No. 12 Pratt-Whitney mult. spdl.
- 1-No. 13 Pratt-W. mult., spdl.
- 1-No. 13 Natco mult. spindle.
- 3-No. 14 Natco univ. adj. mult.
- 1-No. 32 Natco mult. spindle.
- 1-No. 37 Natco mult. spindle.
- 3-No. 41 Natco str. line mult. spdl.
- 1-6" American triple purpose radial.
- 1-No. 310 Baker drill.
- 1-4-spindle Dwight Slate drill.
- 2-4-spindle Allen high speed drills.
- 1-4-spindle Leland-Gifford drill.
- 1-3-spindle Allen high speed drill.
- 1-24" Rockford heavy duty drill.
- 2-28" Prentice sliding head drills.
- 2-32" Aurora sliding head drills.
- 1-42" Cincinnati-Bickford sli. hd.

## Grinders

- 6-6"x32" Norton plain.
- 1-10"x36" Norton plain.
- 3-14"x50" Norton grinders.
- 2-14"x72" Norton grinders.
- 1-20"x72" B. & S. No. 5 universal.
- 1-No. 1 Brown-Sharpe universal.
- 1-No. 22 Brown-Sharpe internal.
- 1-No. 16-26" Blanchard vertical.
- 1-14" Pratt-Whitney vertical surf.
- 1-Springfield-Brandes vertical.
- 1-Churchill internal grinder.
- 1-No. 14 Gardner pl. disc grinder.
- 1-30" Diamond face grinder.
- 1-30" Safety Emery Wheel Co., face grinder.

# Simmons Machine Tool Corp.

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# WICKES "Only the Best"

## PARTIAL LIST

### LATHES AND BORING MILLS

- 30" (34½") x 16' Lodge & Shipley Q. C. G. Lathe.
- 25" x 12' LeBlond Q.C.G. Lathes (2).
- 13" x 21" x 8' Star Gap Lathe.
- 28" Gisholt Turret Lathe, belt driven. No. 2 Foster Screw Machine.
- 3" & 4" Horiz. Boring Mills, (2).
- 42" Bullard Rapid Production Vertical Boring Mill, 220 Volt, D. C., M. Drive, turret head on rail.
- 42" Bullard Vertical Boring Mills.
- 37" Baush Vertical Boring Mill.

### MILLERS AND GRINDERS

- No. 5B Brown & S. Plain Miller.
- No. 5 Becker-Brainard Horiz. Miller.
- No. 4 Cincinnati Plain Miller.
- No. 3 Kempnith Plain Miller.
- No. 3 Kempnith Universal Miller.
- No. 3 Becker Vertical Miller.
- No. 2½ LeBlond Plain, cone drive.
- No. 2 Kempnith Plain Miller.
- No. 1 Cleveland Plain, S. P. D.
- No. 13 Garvin Plain Millers, (2).
- No. 60 Heald Cyl. Grinder, No. 2133.
- 12" x 72" Norton Cylindrical Grinder.
- 4" x 30" P. & W. Cylindrical Grinder.

### RADIALS AND DRILL PRESSES

- 3' Fostick Plain Radial, gear box.
- 6' Bickford Plain Radial.
- Allen & Sipp Single Spindle, (2).
- Barr 6-Spindle Sensitive Drill.
- No. 25 Foote-Burt Hvy. Duty, cap. 3".
- 24" Aurora Sliding Head Drill.
- 24" Weigel-Sliding Head Drill.

### SHAPERS—PLANERS—SLOTTERS

- 16" Gould & E. High Duty Shaper.
- 16" Stockbridge, Crank Shaper.
- 20" Smith & M. Crank Shaper, new.
- 24" Cincinnati B. G. Shaper.
- 10" & 18" Betts Slotters (2).
- 24" x 24" x 10' Chandler Planer.
- 30" x 30" x 8' Pond Planer, 2 heads.
- 36" x 30" x 16' Whitcomb-B. Planer.
- 36" x 36" x 10' Pond Planer, 4 heads.
- 36" x 36" x 12' Pond Planer, 2 heads.
- 36" x 36" x 12' N. B. P. Planer, M. D.

### HAMMERS

- 1100 lb. Bell Steam Forging.
- 1100 lb. N. B. P. Forging.
- 2000 lb. Bell Steam Forging.
- 200 lb. United Upright Power.

### PUNCHES AND SHEARS

- 36" Cleveland Style EF.
- 21" Hilles & Jones S. E.
- 12" Cleveland Style EF.
- 2" Doty Guillotine Bar Shear.

### PNEUMATIC RIVETERS

- Allen, 72" reach, 12" gap, 10" cyl.
- Allen, 36" reach, 12" gap, 10" cyl.
- Allen Compression (Angle) lever rive., 11½" dia. cyl., 9½" reach, 14" gap.

### MISCELLANEOUS

- No. 1 Baker Keyseater, capacity 1½" keyways.
- 24" Brown & Sharpe Gear Cutter.
- No. 3B LaPointe Broaching Machine.
- 4"-6"-8" and 12" Pipe Machines.
- No. 20B Bliss O.B.I. Flywheel Press.
- P. & W. Flywheel Trimming Press.

See pages 32, 33, 34 and 35 of our illustrated Monthly Booklet of the largest stock in the United States of slightly used and thoroughly overhauled Machine Tools, Power, Electrical and Contractors' Equipment.

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## Foundry Equipment

- 2—No. 5 Roots Rotary Blowers.
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- 14—Osborne Portable Pneumatic Moulders.
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- 1—3-Ton Gronwall-Dixon Electric Furnace.

## Machine Tools—Woodworking Machinery Electric Motors

## Wayne Machinery Company FORT WAYNE, INDIANA

## Good tools at the right price

### MILLERS

- |                                       |                                       |
|---------------------------------------|---------------------------------------|
| Nos. 2 & 3 Cincinnati plain, s. p. d. | No. 1 Kempsmith plain, cone.          |
| No. 2 Cincinnati universal, cone.     | No. 2 Kempsmith plain, cone.          |
| No. 1 Kempsmith universal, cone.      | No. 4B Becker vertical, rotary table. |
| No. 1 Hendey universal, cone.         |                                       |

### PLANERS AND SHAPERS

- |   |                               |
|---|-------------------------------|
| 48"x36"x16" Niles-Bement-Pond, 2 hds.<br>on cross rail, used less than 3 m. | 24"x24"x6" Gray, 1 head.      |
| 30"x30"x12" Gray, 2 heads on rail.  | 16" Ohio shapers, plain, (2). |
|   | 16" Smith & Mills, b. g.      |

### GRINDERS AND DRILL PRESSES

- Norton plain grinders 6"x30", (2).
- Cincinnati No. 2 plain grinder, 12"x36".
- Van Norman No. 3 race grinders, (2).
- Pratt & Whitney 14" vertical surface grinder, complete with large mag. chuck.
- Bryant No. 6 chucking grinder, (2).
- Rockford 22" four spindle drill presses, (2).
- Cincinnati 42" vertical drills, gear box, (2).
- Cincinnati 42" vertical drills, cone drive, (2).
- Cincinnati 26" vertical drill, tapping attachment.

### MISCELLANEOUS

- Automatics, Potter & Johnston No. 5A, serials 20500, condition excellent, (2).
- Automatic, No. 55 National Acme, high serial, fine condition.
- Engines, 75 h. p. Hewes & Phillips Corliss, (2).
- Engine, 125 h. p. Hewes & Phillips Corliss, direct connected to 100 k. w.
- Sprague generator, 115 v., d. c., speed 175 r. p. m.
- Lathe, 30"x11" American, double back geared, heavy duty.
- Shears, 10' Ohl power squaring, 16 gauge.

Other fine equipment too numerous to mention.

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# Here's Your Opportunity To Secure Real Values—

- 1 24" Weigel Drill Press.
- 3 Fellows Gear Shapers.
- 3 No. 6 Foster Screw Machines.
- 2 No. 4 Southworth Screw Machines.
- 1 No. 4 J. N. LaPointe Broach and Extension.
- 1 No. 3 Landis Universal Grinder 16x36.
- 1 14x50 Norton Plain Grinder.
- 1 12x96 Landis Plain Grinder.
- 1 26"x26"x8' E. C. Pease Planer.
- 1 6' Niles Radial Drill.
- 1 Webster & Perks Universal Grinder.
- 1 10½ Bardons & Oliver Turret Lathe.
- 1 Bryant Internal Grinder.
- 2 6" Gleason Generators.
- 1 No. 2 Warner & Swasey Hand Screw Machine.
- 2 No. 2 Leisy Patton Hand Screw Machines.
- 1 No. 2 LaPointe Broach, 2-spindle.
- 1 American High Pressure Blower.
- 1 6x15 Fitchburg Grinder.
- 1 Tilted Metal Cutting Band Saw.
- 1 3" National Bolt Cutter.
- 1 4" Acme Bolt Cutter, 4½" capacity.
- 1 Warner & Swasey Knee Type Boring Mill.
- 1 20"x14' F. E. Reed Screw Cutting Engine Lathe.
- 1 S. W. Putnam (Fitchburg) 44"x45' triple gear Engine Lathe, 11 H. P. motor.
- 1 Cordesman Iron Tilting Top Saw Table.
- 1 12" Cincinnati Manufacturing Miller.
- 1 3½x84 Fitchburg Lo-swing Lathe.
- 1 Curtiss Oil Separator and Hoist.
- 3 32"x12' Pittsburgh Screw Cutting Engine Lathes.
- 1 14"x6' Hendey Lathe.
- 1 18" Cincinnati Miller, 95% new.
- 1 Cincinnati Tool and Cutter Grinder.

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## FINAL CLEARANCE—Give-Away Prices

84"x84"x30' Sellers Planer, 4 heads,.....	\$6000.
60"x60"x24' Sellers Planer, 4 heads,.....	3000.
4' Drees-Mueller Radial Drill,.....	400.
24" Barnes Upright Drill,.....	150.
No. 25 Foote-Burt heavy duty Drill,.....	650.
5-B Baker Brainerd Vertical Miller,.....	375.
24"x12' Niles-Bement-Pond Lathe,.....	450.
24"x12' Hamilton Engine Lathe,.....	500.
No. 4 Gardner double end Disc Grinder,....	250.
12" Sellers traveling head Shaper,.....	135.
12" Sellers Crank Slotter,.....	350.
18" Highly Cold Saw, 6" capacity,.....	200.
36" Becker Brainerd Auto. Gear Cutter,....	325.
Large lot of cutters for same.	
12" Gould & Eberhardt Spur Gear Cutter,...	200.

Lot of D. C. Motors and miscellaneous Tools. Send for detailed list.

**A. H. JOHNSON, Care I. H. JOHNSON JR. CO.**

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## SPECIAL BARGAINS!

5 No. 2½ Toledo o. b. i. Punch Presses, like new, each.....	\$290.
Barrett 1 bu. cap., motor driven Oil Separator, with crane.....	400.
3½x60 Lo-Swing Lathe, double carriage, taper attachment.....	295.
Garvin No. 2½ Screw Machine, p. f. t., collets, wire feed.....	200.
Pratt & Whitney Bench Lathe, collets, attachments and c. s., ½" cap. ....	145.
Avey No. 4 bench type, ball bearing, high speed Drill Press.....	95.
18"x8" Cincinnati q. c. g. Lathe, complete.....	275.
Lodge & Davis 14" Crank Shaper, complete.....	155.
Oesterlein Miller No. 1, plain.....	200.
24" Floor type Drill Press, back geared, power feed.....	95.
L. & A. Single End Punch, structural head, ½" capacity.....	150.
Jarecki Bolt and Pipe Threader, 1½" capacity.....	100.
Racine High Speed Hack Saw, 6" by 6" capacity.....	70.
Standard No. 1 Floor Type Hand Miller.....	80.
Hanson & Van Winkle Buffing Lathe, 1½" spindle.....	45.

**Wood Working Tools      Tinnners' Tools**

**Guaranteed Rebuilt Leather Belting**

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50 h. p. slip ring, auto. starting control, 440-220 v.-690 r. p. m.-3 p., 60 c..	\$450.
20 h. p. slip ring, auto. starting control, 440-220 v.-690 r. p. m.-3 p., 60 c..	325.
40 h. p. Westinghouse, 440 or 220 v., 60 c., 3 ph., 1150 r. p. m., comp.....	250.
30 h. p. Century—220 or 440 v., 60 c., 3 ph., self starting type, 1800 r. p. m.	175.

All others sizes, A. C. & D. C. in stock; send us your inquiries.

**50—¾", ½" and ¾" capacity Universal Electric Drills.**

**Exhaust Fans and Motor Driven Blowers**

**Midland Equipment Co.,** 612 W. Van Buren St., CHICAGO, ILL.

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# Real Bargains Some Brand New

## LATHES

18"x 8' Morris Q. C., New.  
18"x 10' Morris Q. C., New.  
22"x 10' Morris Geared Head, New.  
22"x 12' Morris Q. C., New.  
32"x 17' Pond Single B. G., Cone.  
42"x 16' Niles, T. G., Cone.

## SHAPERS & SLOTTERS

16" S. G. Stockbridge - Worcester,  
New.  
16" B. G. Stockbridge - Simplex,  
New.  
26" Bement Dbl. Traveling Hd., Mtr.  
15" Bement Slotter 220 v., D. C.

## RADIALS

5' Niles Universal Gear Box.  
6' Niles Universal, Motor.

## BORING MACHINES

5" Bar Niles Floor Borer.  
18" P. & W. Side Head Mill.  
42" Niles B. & T. Mill.  
44" Niles, with R. H. Turret Head,  
220 v., D. C.

## PLANERS

32"x 32"x 10' Niles, 2 Heads.  
32"x 32"x 12' Pond, 2 Heads, Motor.  
36"x 36"x 10' Niles, 4 Heads.  
36"x 36"x 10' Pond, 3 Hds., Rev. Mtr.  
36"x 36"x 12' Pond, 4 Hds., Rev. Mtr.  
38"x 38"x 12' Niles, 2 Heads.  
38"x 38"x 16' Niles, 3 Heads.  
42"x 42"x 12' Niles, 4 Heads.  
42"x 42"x 14' Pond, 4 Heads, Motor.  
48"x 48"x 16' Pond, 4 Heads.  
48"x 48"x 20' Pond, 4 Heads, M. D.  
72"x 72"x 34' Niles, 4 Hds., Rev. Mtr.  
10"x 10"x 36' Betts, Motor, 4 Heads.

## PUNCHES & SHEARS, AND MISCELLANEOUS EQUIPMENT

¾" Cap. L. & A. Plate Shear, Motor.  
⅞" x ⅞" Cap. 12" Throat L. & A.  
Horizontal Punch, arran. for Mtr.  
185 lb. Motor Driven Air Hammer.  
800 lbs. Bement Sgl. Frame Hammer.  
2" Cox Lever Grip Pipe Machine,  
D. C. Motor.  
DA2-Wilson, 220 v., D. C. Welder.

# The Niles Tool Works Company

*Division* Niles-Bement-Pond Company

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# Here's a good list

Broaching Machine, No. 3-B LaPointe.  
 Drill Presses, 20<sup>+</sup> various makes complete. Have us send description of one of the 50.  
 Drill, all geared, 2 spindle, 24<sup>+</sup> Barnes, s.o., complete for tapping, 99% new.  
 Drill, sensitive, 2-sp. Barr, pl. bearing.  
 Radial Drill, 6<sup>+</sup> Fodick, single pulley, speed box drive.  
 Grinder, No. 12 B. & S. pl. cyl.  
 Grinder, No. 1, 10"x24" B. & S. univ.  
 Hammer, steam, 250 lb. Niles-B-P.  
 Hammer, steam, 1100 lb. Niles-B-P.  
 Pulley Lathe, 36" Streit.  
 Miller, plain, No. 0 B. & S.  
 Miller, universal, No. 2 K. & T.  
 Planer, 48"x54"x10' Hamilton, 4 hds.

Press, o. b. i., grd., No. 21B Bliss.  
 Press, solid bk., grd., No. 34 Toledo.  
 Punch, No. 5 L. & A., 24" thrt., capacity  $\frac{3}{4}$ " thru  $\frac{1}{2}$ ".  
 Riveter, No. 3-A heavy duty H. S. Hammer.  
 Shaping Saw, univ., 6"x6" Peerless, with motor.  
 Screw Machine, auto., 1 $\frac{1}{4}$ " Cleveland, model B.  
 Shaper, 24" G. & E., back geared.  
 Shear, Gate, No. 65 New Doty gap, capacity No. 10 gauge.  
 Chucking Machine, P. & J. full automatic.  
 Screw Machine, No. 4 W. & S., grd. friction head.

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## SPECIALS

Bending Rolls, 10 $\frac{1}{2}$ "x $\frac{1}{2}$ " Hilles & Jones, rebuilt.  
 Boring Mills, 50" Bickford vertical; 36" King vertical; 42" Gisholt vert.  
 Grinders, 18"x96" Norton; also Brown & Sharpe, Modern and Morse.  
 Keyseaters, Nos. 2 & 4 Mitts & Merrill; No. 2 Davis.  
 Lathes, 24"x14" Schumacher & Boye, q. c.; 24"x12" Bradford; 21"x12" LeBlond, geared head; 36"x16" Lodge & Shipley; 26"x16" Bridgeford; 38"x16" Fifield; 48"x18" New Haven, triple geared; 48"x28" Niles, triple geared.  
 Millers, Brown & Sharpe No. 3 vertical; Brown & Sharpe Nos. 2B & 3B plain, single pulley drive; Becker model AB vertical; Oesterlein No. 42 plain, with vertical attach.; LeBlond No. 3 universal.  
 Planers, Cincinnati 33"x10" and 24"x8", 2 heads; Gray 30"x30"x16", also 24"x8", 2 hds.; Pond 24"x24"x8" hvy. duty, fine condition, 2 hds.  
 Presses, 12 No. 30 NEW Long & Allstatter Inclinable Presses, 2200 lbs., in original crates; Ferracute Horning Presses; No. 3-A Willard inclinable; 50-ton Lucas Forcing Press.  
 Punch and Shear, Badger,  $\frac{3}{4}$ " thru  $\frac{1}{4}$ ".  
 Radial Drills, 3 $\frac{1}{2}$ " Carlton, 3 $\frac{1}{2}$ " American.  
 Shapers, 24" Queen City; 20" Smith & Mills; 20" Hamilton; 15" Potter & Johnston; 15" Kelly.

More than 250 other Machines in Stock. Low Prices.

Norton-Broadway Machinery Co.,

Cincinnati, Ohio

# POWER PRESSES

EXCLUSIVELY

## EMBOSSING PRESSES

- 1—No. 27 Bliss, 1000 tons.
- 1—Waterbury-Farrel, 100 tons.
- 2—No. EG 54 Ferracute, 400 tons.

## STRAIGHT SIDE PRESSES

- 2—No. 57S Toledo, Tie Rod.
- 1—No. 65 Cons., Tie Rod, geared.
- 1—No. 67 Consolidated 6" stroke.
- 3—No. 57 Toledo, geared.
- 2—No. 56 Toledo, geared.

## TOGGLE PRESSES

- 1—No. 33½ A Bliss.
- 3—No. 1½ Bliss, friction clutch.

## AUTO. TRANSFER PRESSES

- 1—No. 202 Bliss, 5 plungers.

## BENCH PRESSES

- 15—No. 1B Baird, new.

## DOUBLE CRANK PRESSES

- 4—No. 114 Bliss, overhang fly.
- 1—No. SGG 522 Ferracute, 76" bet. uprights.

- 1—SRC, 102 Ferracute, 40" bet. up.
- 3—No. S51 Ferracute, 33½" bet. up.
- 1—No. 4¾B Bliss, 38" geared.

## SOLID BACK PRESSES

- 2—No. 5 Bliss, Stiles, geared.
- 1—No. 4 Bliss, Stiles, geared.
- 1—No. 35P Toledo fly wheel.
- 1—No. 23 V. & O. combination.

## ADJUSTABLE BED PRESSES

- 1—No. 147 Toledo, grd. bed 30x20.
- 7—No. 83 Consolidated.
- 2—No. 2A Bliss.
- 1—No. 42 V. & O., 2—No. 16 Bliss.

Over 1200 Presses in Stock.

Write for New Catalogue.

**Joseph HYMAN & Sons**

Tioga and Almond Sts., Philadelphia, Pa.

## Exceptional Values NEW Machine Tools

### Lathes

- 12x 6 Shepard, semi-q. c. g.
- 14x 6 Bradford, q. c. g.
- 18x 8 Bradford, standard.
- 20x10 Bradford, q. c. g.
- 16x 8 Hamilton, q. c. g.
- 18x 8 Greaves-Klusman, q. c. g.

### Screw Machines

- No. 0 Foster, a. c. & w. f.
- No. 1 Foster, a. c. & w. f.
- No. 2 Foster, a. c. & w. f.
- No. 3 Foster, a. c. & w. f.
- No. 7 Foster, a. c. & w. f., f. h. & p. f.

### Millers

- No. 0 Rockford plain.
- No. 1 Rockford hand.
- No. 0 Standard hand.
- No. 1 Standard hand.
- No. 1½ Standard hand.

### Miscellaneous

- 30x30x8 Planer, 2 heads.
- 60 lb. Helve Hammer.
- 80 lb. Helve Hammer.
- 8" Gear Hobber.
- Drill Grinder, ¼ to 2½.
- 3/16 Rivet Spinner.

*Large Stock of Used Machinery at Special Prices*

**Stocker-Rumely-Wachs Company**

117-121 N. Jefferson St.,

Chicago, Ill.

## Partial List—Attractive Prices

### MILLING MACHINES

- 1—No. 2 B S Milwaukee plain, double over arm, nearly new.
- 1—No. 3 Cincinnati plain, single pulley drive.
- 1—No. 2 Cincinnati pl., cone. dr.
- 6—No. 1 Milwaukee pl., sgl. p. dr.
- No. 2 Cincinnati vertical, rotary table.
- 1—Model B Becker vertical.
- 1—Model AB Becker vertical.

### DRILLING MACHINES

- 1—8' American radial, gear box drive, tapping attachment, practically new.
- 2—3' American high spd. sensitive radial, tapping attachment and elevating table.
- 6—No. 25 Foote-Burt heavy duty drill presses, 1 with comp. tbl.
- 1—No. 2 Avey 2 sp., high speed.
- 3—Class K Henry & Wright 3-spindle, high speed.
- 2—Allen 2-spindle high speed.

We have 500 other machines in stock. If you do not see it listed, send us your inquiry.

### PLANERS and SHAPERS

- 1—30"x30"x16" Gray planer, 3 heads, spiral gear drive.
- 1—20"x20"x5' Whitcomb planer, single head.
- 4—18"x18"x4' Whitcomb planer, single head.
- 1—16" Cincinnati bk. grd. shaper.
- 2—16" Whipp bk. geared shapers (brand new).
- 1—17" Smith & M. b. g. shaper.

### MISCELLANEOUS

- 1—No. 12 B. & S. plain grinder, capacity 8"x36", late type.
- 1—6"x80" P. & W. thread miller.
- No. 10 Brown & Sharpe plain grinder, capacity 6"x20".
- 1—No. 3H Brown & Sharpe gear cutter, cap. 24"x8—3 Pitch.
- 1—No. 1 Brown & Sharpe Wire Feed Screw Machine.
- 1—No. 8 Brown & Sharpe Wire Feed Screw Machine.

## New Jersey Machinery Exchange

4 Orange St., Newark, N. J.

## Slightly Used and Rebuilt Tools At Attractive Prices

- 1—No. 4 Colburn Single Spindle Mfrs. Drill, with pump, capacity 2".
- 1—No. 2 Colburn Single Spindle Mfrs. Drill, with pump, capacity 1½".
- 1—No. 310 Baker Bros. High Spd. Hvy. Duty Sgl. Spdl. Drills, rebuilt.
- 1—No. 2, Pfauter 39¼", cap. 2½ d. p., auto. Gear Hobbing Mch., 90% new.
- 1—No. 1 Bath Universal Grinding Machine with all attachments, rebuilt.
- 1—10"x36" Landis Plain Cylindrical Grinding Mche., complete, rebuilt.
- 2—12"x5' Hendey Cone Head Tie Bar Quick Change Gear Lathes, with oil pan, compound rest, standard equipment, rebuilt.
- 1—14"x6' Hendey Cone Type Tie Bar Head, Q. C. Lathe, c. r., taper att.
- 1—16"x10' LeBlond Q. C. Gear Lathe, comp. rest, standard equipment.
- 1—14"-28"x10' Fay & Scott Gap Lathe, compound rest, standard equipment, 90% new.
- 1—No. 3-G Hendey Plain Milling Mche., geared spdl., sgl. pulley drive.
- 1—24"x24"x6' Liberty Planer, one head on cross rail, box bed and table, 90% new.
- 1—¾" Model A Cleveland Automatic Screw Machine, rebuilt.
- 1—1¼" Model A Cleveland Automatic Screw Machine, rebuilt.
- 1—2¼" Milholland Latest Style Geared Friction Head Turret Screw Machine, automatic chuck, bar feed, power feed to turret, oil pan, pump, master collet and assorted bushings, 90% new.

## The W. M. Pattison Supply Co.

General Offices and Warehouse, Cleveland, Ohio



1", 1 1/2", 2", 2 1/2", 3", 3 1/2" Ajax Upsetters.  
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 Nos. 2, 4, 5 and 7 Williams-White Bulldozers.  
 30, 50, 75, 100, 200, 500 lb. Bradley Upright Hammers.  
 25, 40, 60, 80, 100 lb. Bradley Cushioned Helve Hammers.  
 No. 4 Nazel Air Hammer, with 15 h. p., a. c. mtr., 220 v., 60 cy., 3 ph.  
 2000 lb. Erie Steam Forging Hammer.  
 Bertsch Plate Shear, 8'x1" cap., rebuilt, condition equal to new.  
 1", 1 1/2", 3", 4" single spindle Threading Machines, Acme and Landis.  
 1", 1 1/2", 2", 2-spindle Threading Machines, Acme and Landis.  
 2" Landis Pipe Threading Machines.  
 1", 1 1/2", 3" & 6-spindle vertical semi-automatic Tappers.  
 Guillotine and Bar Shears, from 1" to 4".  
 Rock River S. E. Punch, 24" Throat, cap. 1/4 thru 1/2, arch jaw.  
 Nos. 50 & 60 Waterbury-Farrel Thread Rollers.  
 1/2 and 3/4" cold punch nut machines, Waterbury and Manville.  
 No. 6, 1/2" capacity, Waterbury-Farrel Cold Header, D. S. S. D.  
 No. 1 AA, 3B, 6B, High Speed Riveting Hammers, also Grant and  
 Schuster.  
 200' of Steel Shelving.  
 Economy Power Tying Machine.  
 Baker, Raulang Storage Battery Elevating Truck.  
 No. 65 American Gas Furnace Co.'s Heating Machine.  
 No. 154 Rockwell Rotary Annealing Furnace.

## Donahue Steel Products Co.

*Bolt and Forging Machinery Specialists*

**1147 So. Washtenaw Ave., Chicago, Ill.**

# Used Machine Tool Bargains

1—LeBlond 25"x18' heavy duty Q. C. G. Engine Lathe, pump, piping, motor driven by Westinghouse 15 H. P. motor, 220 Volts, D. C.	\$1200.
1—Springfield 26"x10' Universal Turret Lathe with 3-step cone, double bk. gear, screw cutting, semi-qk. change gear, dbl. friction countershaft.	450.
1—Gisholt 24" Turret Lathe, with 2 1/2" spindle bore	600.
1—Ferracute DGC-56 Straight Side Single Crank Press, with sq. gearing, friction clutch drive, 20" stroke and with bolster plate	835.
1—Toledo No. 25 Upright Press, plain flywheel type, with one bolster plate, 1" stroke	125.
1—Long & Allstatter 60-lb. Helve Hammer with countershaft	200.
1—Niles 5' Universal Radial Drill, 4-step cone, tilting table, with countershaft	550.
1—Niles 6' Universal Radial Drill, speed box drive, having four changes, box table 28"x29" on side wing, positive reverse for tapping, No. 5 Morse taper in spindle	500.
1—Cincinnati 12"x36" Universal Grinding Mche., with countershaft and drum countershaft and equipment	550.
1—Modern 12"x48" Plain Cylindrical Grinder, carrying wheel 18"x2x5" hole, with self contained countershaft for belt drive	650.

**THE E. A. KINSEY CO., 335 West Fourth Street, CINCINNATI, O.**

**BRANCHES:** INDIANAPOLIS, IND. HAMILTON, OHIO. DAYTON, OHIO.  
LOUISVILLE, KY., COLUMBUS, OHIO

# To Close Client's Estate

20" Gould & Eberhardt back geared Shaper.....	\$400.
16" Juengst back geared Shaper.....	285.
16" Garvin plain geared Shaper.....	215.
No. 2 LaPointe Broacher, practically new.....	310.
6"x32" Norton plain Grinder.....	405.
16"x6" Blaisdell Lathe.....	105.
16"x6" Prentiss Lathe.....	115.
No. 2 Garvin plain Milling Machine.....	90.
14"x5" Hendey tool room Lathe, taper attachment.....	310.
4-spindle Garvin Drill Press.....	80.
8" Heald rotary surface Grinder, magnetic chuck.....	360.
No. 15 Lea-Courtney Cold Metal Saw, 4" round.....	205.
Whiton 4" Centering Machine.....	80.
4" Victor Pipe Machine, dies 1 to 4".....	155.
60" Bickford Drill Press, back geared.....	195.
48" Fitchburg back geared sliding head Drill.....	245.

*The above tools are in a plant now being dismantled by us and must be sold immediately. All machines are in fine operating condition, and are priced to move quickly.*

**Bertolette Machine Tool Company, Incorporated**  
222-234 Culver Ave., Jersey City, N. J.

## LIQUIDATING MACHINERY AND EQUIPMENT of Oneida Motor Truck Co., Green Bay, Wisconsin

*Following Ironworking Machines at BARGAIN Prices:*

24" Milwaukee Shaper, belt dr., crank, hollow ram with 14" univ. vise, c. s.	No. 372 D. H. Stowell 73" gap Shear with 20" gap, for 3/4" steel or lighter.
No. 4A High Speed Riveting Hammer.	No. 10 P. & W. Auto. Milling Mch., with special table, travel 12".
No. 20 Quick-work Rotary Shears, 30" throat.	No. 2 LaPointe Broaching Machine
No. 3 Dreis & Krump Hand Power Bending Brake.	No. 15 Garvin Hor. Duplex Drilling Machine, open belt, screw power feed, with oil pan, pump and piping.
28" Niagara Deep Throat Roll Bearer No. 25.	44" Tire Press, 150-ton capacity, 28" stroke, 46" between uprights, 32" between platens, 44" dia. of plates.
50-ton Lourie type W. Straightening and Bending Press, with pump.	No. 8 Bardons & Oliver Screw Machine or Turret Lathe.
No. 2 Brown & Sharpe Universal Milling Machine, with slotting head and vertical head, vise dividing head.	No. 1 Acme Bolt Cutter.
18" Cincinnati Automatic Duplex Milling Machine.	No. 14 Besly Double Grinder, without plain table and press.
Polishing Lathe, No. 4 Gardner, B. B. Lathe, 36"x18" Niles-Bement-Pond.	No. 79 Toledo Trimming Press, 3" stroke, belt drive.
Punch and Shear, No. 3 Royersford, double end.	No. 5 Toledo O. B. I. Flywheel Punch Press.

*Write us for what you want, and what you have for sale.*

**NELSON MACHINERY CO., 123 N. Pearl St. Green Bay, Wis.**



# RAREFIED Dust Collector

Gives Unequalled

## SERVICE

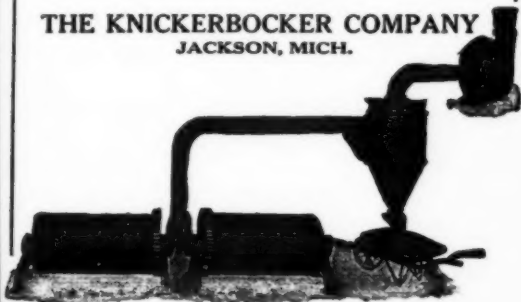
**Because** it collects all heavier than air dust—whether from emery wheels, sand blasts, tumbling mills or polishers—and discharges it automatically.

**There's no abrasion** of fan parts, and no internal wear to speak of. Rarefied has no screens to clog; inner walls are interchangeable, and require no hand cleaning.

**It's more economical** no matter how you figure. Since it can not get out of order, repair costs are held at zero. The partial vacuum principle on which it works has effected a 40 per cent saving in power in many plants.

*Many plants are using more than 25 Rarefieds  
Let us tell you why this is*

**THE KNICKERBOCKER COMPANY**  
JACKSON, MICH.



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# La Salle Grinders

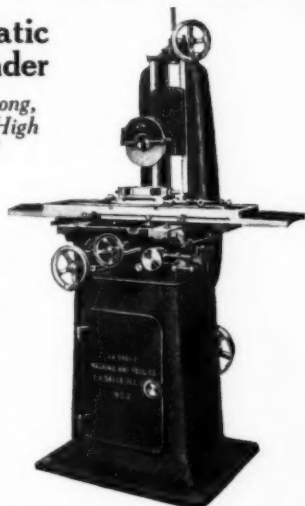
*For Precision and Production*

## No. 2 Automatic Surface Grinder

*Grinds Work 20" Long,  
6" Wide and 10" High  
With 7" Wheel*

Table travels automatically in both directions. A hand-power table movement can be operated without changing automatic feed.

Also has automatic cross feed in either direction with automatic stop. Wheel truing device is built integral with machine.



**You will find** nothing better than the La Salle No. 2 Automatic for grinding dies, punches and a wide range of small tools, as well as for many manufacturing jobs. Exceptionally rigid, it has ample provision for preserving perfect alignment. Arranged for either wet or dry grinding, with belt or direct motor drive.

**La Salle Grinders** include our No. 1 and No. 3 Plain and Surface Grinders; No. 2 Automatic Surface Grinder; and American Wet and Dry Drill Grinders in various sizes—each a real leader in its class. *Write us for complete information concerning these modern Grinders, and consult with us freely about your needs.*

**La Salle Tool Company**  
**La Salle, Illinois, U. S. A.**

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## EMERY WHEEL DRESSERS

ROSS dust-proof, ball-bearing tools have always set economy standards for emery-wheel dressing and truing. Let us make recommendations from the complete Ross line for your grinding work.



**ROSS 14-R RED RIPPER**—A roughing tool that will remove 1/64-inch with a single pass. Electrically hardened discs can be replaced in your own shop at nominal cost. Holders supplied for periphery or side wheel dressing.

**ROSS 24-F FINISHER**—Used with exceptional results by many shops for commercial work on axle-shafts, axle-housings, pins, tappets, bolts, etc., frequently replacing diamond tools. Holders for periphery or side wheel dressing.



**ROSS MASTER TOOL (SERIES 200)**—For finest periphery grinding. Guaranteed to produce work equal in quality to that of a diamond—at a saving of 50% or more. Made for Norton, Landis, Brown & Sharpe and other grinders.

**THE ROSS MANUFACTURING CO.**  
2180 Clarkwood Road • CLEVELAND, OHIO

**ALSO MANUFACTURERS OF THE WELL-KNOWN  
ROSS COOLING-FLUID PUMPS**



**T**HIS Portable Work Stand, in its sturdy construction, practical design and usefulness, is typical of the complete line of New Britain Shop Furniture and Factory Equipment.

Every unit has been tried and proved in the testing ground of actual service.

*Bulletins on request*

**The New Britain Machine Co.**

**New Britain, Connecticut**



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